DEPARTMENT OF THE ARMY
HEADQUARTERS
U.S. ARMY MANEUVER SUPPORT CENTER AND FORT LEONARD WOOD
FORT LEONARD WOOD, MISSOURI 65473-5000

FLW Regulation
No 385-6

26 June 2002

Safety
SAFETY PROGRAM

Summary. This regulation establishes policy and procedures for the United States Army Maneuver Support Center and Fort Leonard Wood (MANSCEN & FLW) Safety Program. It fixes responsibility and provides a review system to ensure standards are enforced.

Applicability. This regulation applies to all units, directorates, agencies, and activities assigned or attached to the MANSCEN.

Supplementation. Supplementation of this regulation is prohibited unless specifically approved by Headquarters (HQ), MANSCEN.

Forms. The "-R" forms at the back of this regulation are authorized for local reproduction.

Suggested Improvements. The proponent of this regulation is the MANSCEN Safety Office (MSO). Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) to Commander, MANSCEN, ATTN: ATZT-S, 102 Colorado Avenue, Bldg 631, Fort Leonard Wood, MO 65473-8957.

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*This regulation supersedes FLW Reg 385-6, 29 March 1991, to include changes 1-3.

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Chapter 1
INTRODUCTION

1-1. Purpose. This regulation establishes the MANSCEN Safety and Occupational Health Program. This regulation prescribes the policies and procedures for planning, organizing, and implementing the DA Safety and Occupational Health Program at FLW.

1-2. References and Forms. Required and related references and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of Acronyms and Terms. Acronyms used in this regulation are explained in the glossary.

1-4. Goals. The goals of the Safety and Occupational Health Program are -

a. Minimize accidental manpower, property, and monetary losses in order to use resources more efficiently and enhance the army's combat effectiveness.

b. Provide a safe and healthy environment for military and civilian army personnel and others exposed to army operations.

1-5. Responsibilities.

a. The Commanding General (CG) is the Installation Safety Officer (ISO) and is responsible for minimizing manpower, equipment, and monetary losses.

b. Subordinate Commanders/Directors.

(1) Establish and maintain safety and occupational health programs as outlined in this regulation, and U.S. Training and Doctrine Command (TRADOC)/U.S. Forces Command (FORSCOM), DA, and other directives, standards, policies, and regulations.

(2) Implement and enforce safety and occupational health policies in directives from this HQ, higher HQ, and other appropriate authorities.

(3) Ensure personnel are trained and qualified to perform their assigned jobs. Also ensure they are properly supervised.

(4) Require personnel of other agencies (while on FLW) to comply with the safety and health regulations of this command.

(5) Investigate and report accidents within the command as required by AR 385-40 (Accident Reporting and Records) and chapter two of this regulation.

(6) Ensure the chain of command conducts after action reviews (AARs) of serious accidents and near misses for all activities on and off of the installation. These AARs should contain comprehensive analysis of the problems and an implementation plan for corrections/countermeasures.

c. Supervisors, Military and Civilian.

(1) Attend safety training and be familiar with safety and health standards in their areas.

(2) Ensure personnel are properly trained and provide them with any necessary PCE.

(3) Conduct at least one hour of safety training per quarter for subordinate personnel.

(4) Report all employee injuries and accidents as soon as possible through proper channels.

d. Soldiers/Employees. Everyone will contribute to the safety mission by reporting all injuries, hazards and accidents to their supervisor and eliminating/reducing hazards in their unit/organization.

e. Safety Director.

(1) Develop policy, plans, procedures, objectives, and projects as specified in AR 385-10 (Army Safety Program).

(2) Develop, organize, and manage the Safety and Occupational Health Program for MANSCEN.

(3) Provide safety and occupational health services and advice to all commands, directorates, staff sections, units, and activities assigned to FLW.

(4) Provide technical and professional assistance to eliminate unsafe conditions and practices.

(5) Assist in reporting and investigating accidents as required by Occupational Safety and Health Administration (OSHA) and the appropriate implementing regulations.

(6) Determine the need for accident prevention criteria and procure safety promotional materials.

(7) Assist commanders in developing safety education and training programs suitable for on and off the job activities.

(8) Provide liaison with other safety agencies.

(9) Analyze accident data of this command and prepare trend reports, countermeasure programs, and other studies required locally and by higher headquarters.

(10) Measure the effectiveness of the Safety and Occupational Health Program using administrative and operational safety surveys. With the results of those surveys, verify that safety standards are in accordance with (IAW) OSHA, Army regulations (AR), technical manuals (TMs) and field manuals (FMs), local regulations, and other directives.

(11) Conduct investigations of special interest accidents such as explosives, ammunition, and equipment.

(12) Provide training for unit safety officers/NCOs, supervisors, and employees.

f. Provost Marshal.

(1) Provide the MSO with copies of military police (MP) blotter reports associated with accidents.

(2) Provide additional accident information to supplement DA Form 285 (US Army Accident Report) to MSO.

g. Director of Health Services. Provide MSO with a copy of the daily admission and disposition sheets.

h. Director, Civilian Personnel Advisory Center (CPAC).

(1) Provide MSO with a copy of all Workers Compensation Act Forms (CA Form 1 (Federal Employees' Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation) and CA Form 2 (Federal Employee's Notice of Occupational Disease and Claim for Compensation)) within two days of notification by employee.

(2) Coordinate with MSO on employee work site complaints for an evaluation of unsafe or unhealthy working conditions.

(3) Ensure that performance standards for supervisors/ workers include safety responsibilities.

i. Directorate of Public Works (DPW).

(1) Allocate sufficient resources to correct risk assessment code (RAC) 1 and 2 safety hazards.

(2) Ensure that the Post Fire Marshal provides MSO with a copy of fire incident report submitted IAW AR 385-10.

(3) Require all construction and modernization projects to incorporate explosives safety, fire protection, other appropriate safety and occupational health standards. Provide a copy of each project plan to MSO for review and approval of safety content.

(4) Update MSO monthly on the status of all safety related work orders.

j. Directorate of Contracting (DOC). Ensure OSHA and DA safety requirements are incorporated into contracts IAW AR 385-10 and AR 385-40. Provide a copy of contracts to MSO for review and approval of safety content.

k. Safety Officers/NCOs (military and civilian).

(1) Appoint all Safety Officers/NCOs in writing down to and including detachment level (division level for directorates) to assist the commander.

(2) Attend safety training. Understand and enforce safety and health standards.

(3) Recommend direction for the safety program.

(4) Maintain the unit/organization's safety bulletin board. Post the DD Form 2272 (Department of Defense (DOD) Occupational Safety and Health Protection Program), on the bulletin board.

1-6. Occupational Safety and Health Advisory Council (OSHAC).

a. The purpose of the OSHAC is to address and propose solutions to important safety problems.

b. The CG is the chairman of the committee. The safety director is the executive agent and secretary and will prepare the agenda.

c. Committee members are all major commanders, directors, and unions (International Association of Fire Fighters (IAFF), National Federation of Federal Employees (NFFE), and National Association of Government Employee (NAGE))/contractor representatives. This committee will meet quarterly.

d. The Director of the CPAC, Director of the Military Personnel Office, Fire Chief, Aviation Safety Officer, and Chief of Preventive Medicine, Installation Radiation Protection Officer are advisors to the committee.

1-7. Working Occupational Safety and Health Advisory Council (WOSHAC).

a. The purpose of the WOSHAC is to discuss safety issues which pose a threat to personnel and government property. This committee will provide information to the OSHAC.

b. The Assistant Chief of Staff (CofS) is the chairman of the committee. The team leader of the MANSCEN Safety Branch is the executive agent and secretary and will prepare the agenda.

c. Committee members are brigade/directorate safety officers; representatives from DPW Environmental Section, the fire department and Directorate of Logistics (DOL) Ammunition Section; and other personnel determined by the team leader of MANSCEN Safety Branch. This committee will meet twice each year.

1-8. Installation Safety Rules. Units will brief new personnel, military and civilian, on the installation safety rules contained in appendix B within one week of arrival.

Chapter 2
ACCIDENT REPORTS AND RECORDS

2-1. Accident Reporting.

a. Report all class A and B accidents (as defined in AR 385-40, chapter 2) telephonically through supervisor channels to MSO. Use FLW Form 291-R (Telephonic Accident Report) located in the back of this regulation and send the report as soon as possible. During non-duty hours, send the report to the FLW Staff Duty Officer (SDO) who will contact the Safety Director. Report all off-duty class A and B accidents on DA Form 285-AB-R (U.S. Army Abbreviated Ground Accident Report (AGAR)).

b. Submit a DA Form 285-AB-R on all accidents resulting in one lost workday, not including the day of the accident, or greater than $2,000.00 damage (except army motor vehicle (AMV) accidents which are reported regardless of cost) to army and non-army property as the result of a military operation.

c. Report all accidents involving the following situations, regardless of the amount of money or time lost, on DA Form 285-AB-R IAW AR 385-40:

(1) Aircraft mishap.

(2) Explosives mishap.

(3) AMV accident.

d. Training accidents which cause the service member to not lose a full work day but, they have restricted duty and are not able to train must be reported using FLW Form 385-R (Record of Minor Injury) (see sample at appendix C) within five working days of the accident. This includes light duty, restricted duty, etc.

2-2. Processing of DA Form 285.

a. Submit a DA Form 285 to MSO within ten working days of an accident on each person injured or involved.

b. Tenant commands will forward an information copy of their DA Form 285 to MSO within ten working days of an accident.

c. MSO will forward DA Form 285 IAW AR 385-40.

2-3. Department of the Army Civilian (DAC) Injuries/ Illnesses. Use CA Form 1 and CA Form 2 to report and record all civilian accidents and occupational illnesses IAW FLW CPR 690-33 (Injury Compensation).

2-4. Accident Exposure. Submit the following accident exposure information to MSO by the fifth day of each month:

a. Organizations operating motor pools will submit AMV mileage by vehicle type.

b. The Installation Transportation Officer will report user-driver mileage.

c. The Directorate of Resource Management (DRM) will provide MSO with a copy of the DRM monthly consolidated strength report indicating military man-days information and civilian employee strength.

Chapter 3
INSPECTIONS

3-1. General. The primary purpose of safety inspections is to discover and correct unsafe acts or conditions which may lead to accidents resulting in injuries, deaths, or other losses.

3-2. Type, Frequency, and Criteria.

a. Standard Army Safety and Occupational Health Inspection (SASOHI). The MSO staff will conduct this annually scheduled standard inspection of all organizations not covered by the Organizational Inspection Program (OIP).

b. Local Safety Inspections. Unit Safety Officers/NCOs will conduct safety inspections of their unit using FLW Form 933 (Safety Program Checklist). They will also document the dates of the inspection on FLW Form 944-R (Unit Safety Inspection Record). Units must maintain the results of these inspection on file for one year. Inspection frequency is determined by unit size/type as follows:

(1) Brigade/Directorate - Quarterly.

(2) Battalion/Division (of a directorate) - Every two months.

(3) Company/Branch - Monthly.

(4) Army Reserve Tenant Units - Monthly.

c. Training Areas/Ranges. The commander/director with user maintenance responsibility is responsible for ensuring the training area/range is inspected monthly according to standards published on FLW Form 933, TRADOC Form 854-R (Range Safety Evaluation Checklist), and other applicable standards.

d. Special Safety Inspections. MSO will conduct special safety inspections in response to OSHA/safety violation complaints.

e. Courtesy Inspection. If available, MSO will conduct courtesy inspections in response to unit requests.

3-3. Corrective Action/Abatement Plan. MSO will track safety hazard corrections/abatements as follows.

a. DPW will contact MSO for a RAC assignment on all safety related work orders.

b. MSO will post DA Form 4753 (Notice No. of Unsafe or Unhealthful Working Conditions) conspicuously at the work site for all hazards rated RAC 1 or RAC 2. Do not remove the DA Form 4753 from the work site until the condition causing the hazard has been corrected.

c. MSO will track all RAC 1 and RAC 2 hazards using DA Form 4756 (Installation Hazard Abatement Plan).

Chapter 4
SAFETY TRAINING

4-1. Commanders. All commanders will include safety instruction in any on-the-job-training (OJT) programs. Risk management is essential for OJT programs.

4-2. Safety Officer/Noncommissioned Officer (NCO). All Unit Safety Officers/NCOs will attend the Safety Officer Course - 16 hours within 60 days of their appointment. This course will familiarize them with the Army Safety Program and the local safety policies so that they can conduct effective safety inspections.

4-3. Supervisors. Civilian supervisors will attend the Supervisory Development Course.

4-4. Holiday Safety Training. Commanders will ensure that personnel receive pre-holiday safety briefings. Numerous publications are available with useful information for such briefings. Appendix A contains a partial list. Generally the content of the briefings is at the discretion of the commander; however, at a minimum, briefings will cover the following:

a. The hazards/implications of driving while under the influence of alcohol or drugs.

b. The importance of properly planning trips, taking rest stops, and having someone assist with the driving responsibilities.

c. Seatbelt and child safety seat requirements.

d. The hazards or driving too fast for road conditions. Speed limits are designed for ideal conditions, you must slow down when road conditions are not ideal.

e. Precautions for handling firearms.

f. Precautions for swimming, boating, fishing, and hunting.

g. Seasonal hazards, to include heat/cold injuries.

h. Motorcycle safety.

Chapter 5
MOTOR VEHICLE ACCIDENT PREVENTION

5-1. Safe Tactical Vehicle Operation. Tactical operations place special demands on vehicle operators due to stress, adverse weather/road conditions, fatigue, blackout drive, etc. Therefore, the following safety requirements will be observed:

a. Commanders conducting tactical operations will observe all normal safety standards to include speed limits, passenger transportation standards, vehicle maintenance standards, and emergency procedures. Deviations from those standards are allowed if the only way to accomplish the mission is to deviate from the standard. In training situations, such deviations may be authorized only by the unit commander who will evaluate the significance of the assumed risk versus the training benefit (see FLW Reg 385-5).

b. Standing operating procedures (SOP) for training related to vehicle operations will include safety procedures and policies.

c. Commanders will provide all drivers a comprehensive motor vehicle accident prevention briefing prior to all maneuvers and field training exercises. This chapter contains the information pertinent to that type of briefing.

d. Prior to assignment as a driver, personnel must receive thorough training for the driving conditions anticipated during field training (i.e. driving in mountainous, desert, winter environments).

e. All personnel who operate tactical vehicles under blackout drive conditions will receive drivers training for night operations. At a minimum, training will include the following: fundamentals of night vision, ground guide procedures, sensory illusions at night, effects of stress and fatigue, night driving road test, and speed limits.

f. Convoy commanders will provide all drivers a safety briefing prior to departure. Information is available in this regulation and AR 385-55 (Prevention of Motor Vehicle Accidents).

g. Tracked vehicles will have a track commander when moving (vehicles such as the M-9 ACE and 0-7 Bulldozer are exceptions since the vehicle is only equipped for one person).

h. Personnel will not ride on top of armored vehicles or on top of truck cabs. Any exceptions must be requested through the MSO. When riding in the rear of a vehicle, personnel (except air guards) will not stand up or extend legs, arms or heads out of the vehicle. Air guards in tracked vehicles will not extend their bodies any higher than chest defilade out of the vehicle.

i. Commanders will prevent personnel from driving who are unlicensed, fatigued, intoxicated or unfamiliar with a vehicle. Commanders are responsible for the competence of personnel who drive vehicles in their command.

j. Wheeled vehicles (2 1/2 ton and larger) must use chock blocks when parked. All vehicles will have operational parking brakes.

k. Drivers will ensure that their windshields are clean and free of visual obstructions. All drivers, gunners/air guards and passengers will wear goggles when windshields are down or missing.

l. Vehicles will be loaded according to load plans with equipment securely tied down.

m. Personnel working in and around vehicles will always ensure they have an escape route in case the vehicles move unexpectedly. Personnel should never position themselves between two vehicles or between a vehicle and a fixed object. Particularly hazardous situations are ground-guiding vehicles to parking positions, slave starting vehicles, and rail loading operations.

n. Smoking is prohibited in and around all military vehicles.

o. Vehicle antennas will remain tied down when operating in the vicinity of overhead electrical lines. All antennas must have a tip on the end.

p. Personnel riding in tracked vehicles must wear a protective helmet when the vehicle is in motion.

q. Ensure that armored vehicle hatches are always properly secured with hatch pins in place. The crew must ensure all personnel and objects are clear prior to turning the turret.

r. The use of safety chains between trailers and prime movers is mandatory.

s. Post road guards to warn approaching traffic if a vehicle halts or is disabled in a location that might obstruct traffic.

t. Do not transport personnel on top of cargo loads unless the loads are secured and personnel have sufficient room to remain within the body of the vehicle.

u. Tailgates must be up with safety straps secured whenever transporting troops.

v. Do not transport personnel in the cargo area of the last vehicle in a convoy. The last vehicle should be a 2 1/2 ton or larger marked IAW AR 385-55.

w. Dump trucks used to transport personnel must have a positive locking device to prevent the dump bed from raising.

5-2. Ground Guide Rules.

a. Unit commanders and leaders at all levels must ensure the following:

(1) All unit personnel are properly trained to act as ground guides.

(2) Ground guide procedures are incorporated into unit SOPs.

(3) Ground guides are used when vehicles are operating near other parked vehicles or bivouacked personnel.

(4) Unit perimeter security personnel are briefed on their ground guide responsibilities and are provided signaling equipment for use at night.

b. Supervisors basic rules.

(1) Know ground guide procedures.

(2) Ensure your personnel know, understand, and follow those procedures.

(3) Observe ground guide operations. If you observe unsafe practices, stop them. Assist by instructing.

c. A front ground guide will be used when moving off road or in and around assembly areas. A rear ground guide is necessary in addition to the front ground guide when reversing a vehicle with limited visibility. Drivers and ground guides must use the standard army hand and light ground guide signals.

d. Tracked vehicles (must be equipped with intercom) must use two ground guides when moving.

e. Special cases.

(1) Blocked vision. Vehicles equipped with visual modifications (VISMODs) will cause some reduced visibility for a driver. In most cases, problems occur only during close in forward movements and backing operations. A second ground guide should be used to relay signals to minimize the problem.

(2) Mirror vision. Drivers receiving signals from a ground guide through a mirror normally have difficulty. Distances are deceptive in a mirror. The image is backwards and can easily be misunderstood. In most cases the ground guide can effectively guide the driver by standing off to the side of the vehicle in the drivers line of sight.

(3) Tractor/trailer movements. Most tractor/trailer ground guide accidents occur when the trailer is being backed into position. In this case two ground guides are necessary. One ground guide should be to the rear of the trailer, while the other should be off to the side, with a line of sight to both the driver and the rear ground guide.

(4) Night Movements. Drivers and ground guides must receive night ground guide training before they go to the field. They must all be familiar with the night signals to be used and the location of any sleeping personnel in an assembly area they must move in or around.

5-3. Motorcycle Training.

a. Commanders will ensure that all military personnel in their command who operate motorcycles on FLW are doing so IAW FLW Reg 190-5 (FLW Vehicle Code).

b. All motorcycle operators must have a Motorcycle Safety Foundation Safety Course Card in their possession when operating a motorcycle on FLW. This card is issued upon the completion of the motorcycle safety course. A green motorcycle sticker will be affixed to the left front fork of the motorcycle. A moped is considered a motorcycle in this regulation.

Chapter 6
FIELD SAFETY

6-1. Pyrotechnics/Ammunition.

a. Usage and handling. See FLW Reg 210-14 (Range and Training Areas) and AR 385-63 (Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat).

b. Unexploded (dud) Ammunition. A dud is defined as an explosive item which has failed to properly function after completion of the firing sequence. Safety precautions regarding duds will include the following:

(1) Under no circumstances will a dud be touched, removed or disposed of except by Explosive Ordnance Disposal (EOD) Personnel.

(2) Report the discovery of any duds immediately to the Provost Marshal, Directorate of Plans, Training and Mobilization (DPTM) Training Division, the 63rd EOD, and Range Control.

(3) Clearly mark the area surrounding the dud ammunition to minimize the risks of further contact and to facilitate location and disposal by EOD.

6-2. Bivouac/Assembly Areas.

a. Carbon Monoxide Poisoning.

(1) Personnel will not sleep in parked vehicles while the engine is running.

(2) Ensure adequate ventilation is available prior to operating generators, battery chargers, space heaters, and stoves.

b. Flammable Liquids/Fuels.

(1) Do not use gasoline or other flammable liquids as cleaners.

(2) Use extreme caution during refueling operations. Fuel handlers must be properly trained and licensed to dispense fuel. Fuel trucks must be properly grounded.

(3) Operational fire extinguishers must be readily available during refueling operations.

c. Vehicles.

(1) Minimize vehicle traffic through assembly areas.

(2) Do not route normal traffic through sleeping areas.

(3) Always use ground guides in assembly areas (night and day).

(4) Commanders will ensure that routes into bivouac/assembly areas are either physically blocked or controlled by a manned dismount point.

(5) In an assembly area, a member of the crew must walk completely around his vehicle before starting it, to ensure that it is safe to move the vehicle.

6-3. Stoves/Heaters.

a. Tent Stoves (Ml941, Pot Belly/M1950, and Yukon).

(1) Do not mix fuels. Heaters are designed for use with only one type of approved fuel at a time.

(2) Proper installation, operation, and maintenance of space heaters IAW TM 10-4500-200-13 is mandatory. Commanders will ensure that the chain of command inspects heaters after set up and prior to lighting.

(3) Stove/heater operators must be properly trained and licensed.

(4) Stove/heater operators will keep a fire extinguisher on hand whenever a stove/heater is used.

b. Mess Equipment.

(1) Locate field ranges, immersion heaters, and stoves at least 24 inches from tent or building walls.

(2) If not on bare ground or concrete, place field ranges, immersion heaters, and stoves on sheet metal or in a sand box. When on an earth base, remove all grass and other combustibles within 48 inches of the equipment on all sides.

(3) Only licensed personnel may operate field ranges, immersion heaters, and stoves.

(4) Refueling points will be located at least 50 feet from any source of open flame.

(5) Be sure to close the vent cap before filling the fuel tank of immersion heaters. Attach the heater to the corrugated steel (trash) can before installing the fuel tank onto the heater.

(6) Mess personnel will keep a fire extinguisher on hand whenever operating field ranges, immersion heaters, and stoves.

(7) Do not light M-2 burners inside of a mess tent or facility. Two people are required to carry an M-2 burner inside after lighting.

(8) Immersion heaters must be operated IAW TM 9-4540-202-12&P.

6-4. Electrical Equipment. Prior to operating generators, radios or antennas, personnel must follow the safety and operational guidelines in the appropriate TM for the equipment they are using. Electrical equipment can be dangerous and all personnel should use extreme caution when using this equipment.

a. Generators.

(1) Personnel will use grounding stakes when operating generators.

(2) Turn off generators before hooking up additional loads.

(3) Operators must be licensed on the type of generator they will operate.

(4) Do not store fuel cans on generator trailers while the generator is running.

(5) When operating generators, personnel will keep a fire extinguisher on hand.

b. Radios.

(1) When working with equipment powered by lead acid batteries, keep matches and other flames away from the battery and its fumes.

(2) When working with batteries, remove all watches and rings. Disconnect positive lead first when removing power source, and always connect the positive lead last when installing.

(3) Under no circumstances will operators attempt to repair radio transmitters or receivers.

(4) Only trained personnel will operate communications-electronics equipment.

(5) Before operating radios, ensure that antennas are grounded and that they are no closer than two antenna lengths from electrical sources.

(6) All vehicle mounted radios should be turned off prior to starting the vehicle.

(7) The antenna connections of high powered radio equipment are dangerous. Do not touch them while the radio is being operated.

(8) Ground switchboards (38-22) with grounding stakes.

(9) Signal shelters (vehicle and ground) must be grounded with grounding rods. The rods must be all the way in the ground and bolted to the shelter with tight fitting clamps and straps/cables. All communications equipment inside the shelter must be properly bonded to the shelter.

(10) Signal shelters should not be located so close together that a person can touch both shelters at the same time.

c. Antennas.

(1) Due to the presence of overhead power lines, erecting antennas can be dangerous. Follow the directions in the equipment TM. Personnel erecting antennas in a cantonment area will be supervised by a staff sergeant or above. That supervisor will ensure that soldiers wear kevlar helmets and safety goggles; the antenna is not closer than twice its height to overhead power lines; and that the antenna is properly grounded.

(2) Tie down vehicle antennas in built up areas. When tied down the antenna should be between nine and thirteen feet high.

(3) Ensure the tie down clip can not release the antenna even if it strikes an object.

(4) All antennas will have a tip on the end.

Chapter 7
PROTECTIVE CLOTHING AND EQUIPMENT (PCE)

7-1. Authority for Purchase and Issue.

a. Title 5 U.S.C. 7903 and AR 385-10 authorize the purchase and maintenance of PCE.

b. PCE will be issued and worn IAW the results of JHA and with the guidelines in appendix D.

c. Supervisors will conduct a job safety analysis to determine the need for PCE. The MSO will assist supervisors.

7-2. Purchase, Maintenance, and Use.

a. PCE will be furnished by the unit or activity at no cost to personnel.

b. PCE will be maintained in a sanitary and reliable condition.

c. Commanders may initiate disciplinary action under the Uniform Code of Military Justice (UCMJ) against military personnel failing to use their PCE. Guidance for disciplinary action against civilian personnel is provided in FLW CPR 690-24.

7-3. PCE Table.

a. The table at appendix D prescribes the clothing and equipment for use by the civilian and military personnel on FLW to protect them from hazards inherent in their jobs. This table does not cover all jobs requiring PCE. Supervisors are responsible for contacting MSO to determine PCE requirements for activities not listed.

b. Commanders and directors may prepare their own PCE table for convenience of their personnel.

7-4. Exposure Criteria/Protection.

a. Eye protection

(1) Personnel will wear plain or prescription safety eyewear wherever foreign particles, gases, liquids, vapors, or fumes can cause eye injuries (i.e. grinding machine, battery repair shop, welding shop, etc).

(2) Commanders/directors are responsible for identifying potential eye injury hazard areas and warning everyone who enters that area. Visitors as well as workers will wear protective eyewear suitable to guard against the hazard.

(3) Prescription safety glasses will be provided to each employee who require corrective eyewear and whose duties are eye hazardous. Employers are responsible for the cost of the examination and the safety eyewear. Safety glasses will be provided to any employee having useful vision in only one eye regardless of the position or the hazard of the work involved.

(4) Contact lenses are not authorized for wear in eye hazardous areas in place of safety glasses.

(5) When tinted safety glasses are needed to protect against sun glare at work, they will be provided after the approval of medical personnel.

b. Foot Protection.

(1) Personnel exposed to severe foot hazards will wear safety shoes/boots. Appendix D specifies activities requiring safety shoes.

(2) Submit requests for safety shoes IAW DOL SOP.

c. Head Protection.

(1) Personnel exposed to injury from falling or flying objects will wear protective headgear. Examples of jobs requiring head protection include: working under steep cliffs/slopes, around cranes, under scaffolds, in warehouses storing objects above head level, and around power lines.

(2) Bump caps are required for confined spaces and areas containing bump against hazards where there is no danger of severe blows from falling or flying objects.

d. Hearing Protection. Personnel employed in noise hazardous areas will wear ear plugs, muffs, or both and will enroll in the Hearing Conservation Program. Noise levels above 85db± constitute a noise hazard.

Chapter 8
BRANCH SAFETY PROPONENCY

8-1. Purpose. To establish policies and delineate responsibilities for integrating safety into all areas of the engineer, chemical, and MP school and branch operations.

8-2. Policy. The MSO has branch proponency of the United States Army Engineer School (USAES), United States Army Military Police School (USAMPS), and United States Army Chemical School (USACMLS) safety programs. Safety will be integrated into all products for which the MSO has proponency, to include developments in the areas of doctrine, training, leader development, organization, materiel acquisition, and soldier support.

8-3. Responsibilities.

a. Installation Commander.

(1) Has the overall responsibility to ensure that safety is integrated into all areas of USACMLS, USAES, and USAMPS Branch proponency.

(2) Has signature authority for the combat developers recommendation on residual risks designated as MEDIUM in System Safety Risk Assessments (SSRA).

b. Commandants USACMLS and USAMPS and Assistant Commandant, USAES, will ensure that all MANSCEN (as applicable) activities comply with this chapter.

c. Assistant Commandants USACMLS and USAMPS and Deputy Assistant Commandant for USAES will -

(1) Ensure that all directorates comply with this chapter.

(2) Ensure that each directorate develops procedures to track safety integration.

(3) Provide feedback on safety issues to MSO.

(4) Provide students an opportunity, in their course critiques and formal AARs, to correct unsafe training practices or conditions, the extent to which safety was emphasized in the course, training for leader safety responsibilities, and actions and attention to safety issues demonstrated by instructors.

(5) Develop and implements a system to evaluate instructors on their attitude and actions for maintaining a safe training environment and for training future leaders on their safety responsibilities.

(6) Provide feedback on safety issues to MSO.

d. Director, MSO will -

(1) Establish goals, objectives, plans, and procedures for operation of the program in conjunction with the commandants, assistant commandants, deputy assistant commandants, and school directors.

(2) Evaluate the status of the program on a regular basis and provide feedback/advice to the commandants.

(3) Provide the following special staffing, as specified by HQ, TRADOC.

(a) Branch Safety Specialist. A Safety and Occupational Health Specialist (GS-018) will be tasked with assisting each school and branch in integrating safety into all areas.

(b) System Safety Engineer. A System Safety Engineer (GS-803) will be tasked to assist the Directorate of Combat Developments (DCD) and other school directorates in integrating safety into the materiel acquisition process (developmental and non-developmental equipment, training devices, materiel changes, product improvements, user and technical testing), throughout the life cycle (conceptual development through fielding and disposal). Duty location is in DCD.

(4) Ensure the job descriptions for safety professionals working with the schools and branches address requirements for branch specific knowledge and experience.

(5) Develop and implement individual training plans to ensure safety professionals gain and maintain necessary knowledge of branch specific equipment and operations, and knowledge of TRADOC branch school operations.

(6) Maintains coordination with all school directorates, all training activities, TRADOC Command Safety Office, and branch liaison officers at the U. S. Army Safety Center (USASC).

(7) Review and provide comments on all programs of instruction (POIs), FMs, training circulars, individual training publications (ITPs), course management plans, and other branch proponent publications prior to publication or implementation.

(8) In conjunction with USASC, provides quarterly analysis of branch accidents (lessons learned) and prepares documents for commandant' s signature to be sent to commanders worldwide.

(9) Monitors the integration of safety and risk management into all school operations, training, and projects.

(10) Provides updated information on accident trends and countermeasures to branches as they become available.

(11) Evaluates leader development courses to insure safety training is adequate.

(12) Provides safety release recommendations to TRADOC Command Safety Office. Provide safety release for locally sponsored tests and demonstrations when not available from United States Army Test and Evaluation Command (TECOM).

(13) Provides representation to the Safety Implementation Action Committee.

(14) Establishes and maintains a comprehensive hazard tracking system for the purpose of logging and tracking hazards identified during or resulting from materiel development and acquisition, training development and operations, doctrinal changes, organizational changes, accident investigations, near-miss incidents, and lessons learned.

(15) Reviews the combat developer's position on the acceptability of residual risks for all SSRA and provides an independent position as an appendix, if appropriate.

(16) Evaluates integration of safety into all MANSCEN products and operations.

e. DCD will -

(1) Ensure that system safety engineering and management principles are applied to all systems being considered for acquisition during all phases of the system life cycle.

(2) Provide the school combat developer's positions, coordinated with MSO, on the acceptability of residual risks for all SSRA for each proponent system.

(3) Has signature authority for the combat development recommendation on residual risks identified as LOW in the SSRA.

(4) Ensure that all system safety requirements are identified in the appropriate sections of all requirements and management documents.

(5) Ensure that system safety concerns are addressed during the development of critical operational issues and criteria.

(6) Ensure system safety issues are identified and addressed during the reliability, availability, and maintainability (RAM) requirements definition process.

(7) Ensures that all test documents are staffed with the system safety engineer for identification of safety-related test issues.

(8) Ensures that all market investigations, performed by the materiel developer, address system safety requirements.

(9) Ensure that all request for proposals (RFP) and other contractual documents received by the materiel developer are reviewed by the system safety engineer for verification that required MIL-STD 882 tasks are included.

(10) Ensures risk management techniques are used to identify potential hazards that may arise during a system's development/fielding.

(11) Develops and maintains a system to track safety issues.

(12) Ensures system safety is represented at all Manpower and Personnel Integration (MANPRINT), Joint Working Groups (JWG), Test Integration Working Groups (TIWG), Red Team Reviews, Mission Needs Statement, and Operational Requirements JWGs. Provide the combat developer's representative to all system safety working groups.

(13) Ensures system safety issues and concerns are listed in the system MANPRINT management plan, along with proposed studies and analyses to resolve the issues, appropriate to the life cycle phase.

(14) Initiates materiel change management (MCM) programs to improve the safety, health, and human factors aspects of proponent systems.

f. Director of Training and Doctrine (DOTD).

(1) Develops and maintains a system to track safety issues.

(2) Ensures risk management techniques are used to identify and control or eliminate hazards in all training products and equipment used during training.

(3) Ensures that all POIs, field manuals, training circulars, soldier training publications (STPs), Army training and evaluation program (ARTEP) manuals, ITPs, course management plans, and other publications are forwarded to MSO for review.

(4) Ensures that all lesson plans which are developed or reviewed by DOTD contain the appropriate safety considerations, both up front and throughout the lesson.

(5) Ensures that training device requirements and other related documents are coordinated with DCD for identification of RAM and system safety issues/requirements.

(6) Ensures that all residual safety, health, and human engineering hazards are addressed in all training developments, training courses, and associated publications.

(7) Ensures that a representative from DOTD is present at all MANPRINT JWGs.

(8) Ensures risk management techniques are used and safety is integrated into the development of topographic systems and the training on topographic systems.

g. DOL.

(1) Ensures that branch safety-related problems associated with performance of installation logistics functions are brought to the attention of MSO for resolution.

(2) Ensures that copies of all Quality Deficiency Reports (QDR) and Equipment Improvement Reports (EIR), on equipment for which USAES, USACMLS or USAMPS Branch is proponent, are forwarded to DOTD, DOD, and MSO for their information and assistance.

j. Commanders/directors of training Brigades/ Departments (1st Engineer Brigade, 3d Training Brigade, 14th Military Police Brigade and 3rd Chemical Brigade, Department of Instruction) and Commandant, MANSCEN Noncommissioned Officer Academy (NCOA).

(1) Ensure training is conducted in a safe manner. Use risk management techniques as required by FLW Reg 385-5.

(2) Ensure lesson plans contain safety considerations up front with the task, conditions, and standards as well as integrated throughout the lesson as appropriate.

(3) Ensure leader development courses cover the leader's safety responsibilities, appropriate to the subject.

(4) Ensure that instructors set the safety example.

(5) Ensure that training departments which are responsible for developing doctrine use risk management techniques and integrate safety into doctrine.

Chapter 9
CENTRALIZED ACCIDENT INVESTIGATION GROUND (CAIG) ACTION PLAN

9-1. Purpose. To provide instructions concerning the notification and investigation of on duty class A and class B training accidents and other accidents of significance to the Army Safety Program which occur at FLW or at a training location at which FLW has equipment, troops, or responsibility.

9-2. Definitions.

a. Class A accident - an army accident in which the resulting total cost of property damage and personnel injuries or occupational illness is $1,000,000 or greater; or an injury or occupational illness that results in a fatality or permanent total disability.

b. Class B accident - an army accident in which the resulting total cost of property damage and personnel injuries or occupational illness is $200,000 or more, but less than $1,000,000; or an injury or occupational illness that results in permanent partial disability or hospitalization of five or more personnel in a single occurrence.

9-3. Policy.

a. On duty class A and class B training accidents and selected other accidents (as directed by TRADOC or Commander, MANSCEN) will be investigated by a CAIG Investigation Board. All CAIG investigation boards will employ general use accident investigation procedures according to AR 385-40 unless directed to do a limited use investigation by TRADOC safety.

b. Upon notification, Commander, USASC will determine which accidents will be investigated by CAIG board from USASC.

(1) Normally USASC will not provide an investigation board for following type accidents (however, they must still be notified):

(a) Off duty.

(b) Marine (water).

(c) Chemical.

(d) Explosives.

(e) Nuclear.

(f) Fire.

(g) Privately-owned vehicle (POV).

(2) If USASC provides CAIG board, they will notify installation of administrative and logistical support required, as well as requirements for additional personnel to augment the CAIG investigation board.

c. As soon as possible after notification, a member of MSO will proceed to the accident scene. He will start gathering information, insure the provisions of this chapter are followed and provide information and feedback to the MSO Safety Director and CofS.

d. The FLW Public Affairs Office (PAO) will be the sole releasing agency for information pertaining to accidents under the purview of this plan.

e. The safety accident investigation will take precedence over all collateral investigations.

f. Promises of confidentiality cannot be given to witnesses.

g. Post accident toxicological testing.

(1) The first uninvolved commander in the chain of command of a unit experiencing an on duty class A or class B accident shall direct toxicological testing (blood and urine samples) of those military personnel directly involved in the accident, once he personally determines the accident to be within the parameters for class A or class B accidents established in paragraph 9-2. The commander must, whenever possible, utilize probable cause based search authorizations to obtain these samples to allow for the widest possible use of test results in potential judicial, non-judicial or administrative actions resulting from the accident. Civilian personnel will not be involuntarily tested solely under authority of this regulation. In the case of a civilian, whether affiliated with the DOD or not, testing will only be accomplished when independent authority exists (e.g. consent, implied consent, authorization to search).

(2) Situations for not testing. No testing shall be required in the case of an accident, the cause and severity of which are wholly attributable to a natural cause (e.g., flood, tornado, other natural disasters) as determined on the basis of objective and documented facts. No testing shall be required of an individual when the commander can immediately determine, on the basis of specific information, that they had no role in the cause(s) or severity of the accident. Results of toxicological tests directed by the commander will be available to all investigating agencies (safety accident investigation board and collateral investigation boards). If the commander does not direct toxicological testing, the president of the accident investigation board may direct such testing. In the event the toxicological testing is directed by the president of the accident investigation board, the results will only be available to the accident investigation board.

9-4. Notification.

a. The unit which experiences the accident, or the first person to discover the accident will immediately notify -

(1) Their chain of command.

(2) Range Control will be notified of all accidents occurring on ranges or in training areas IAW FLW Reg 210-14.

(3) The chain of command or Range Control will notify -

(a) During duty hours: MSO, 596-0116.

(b) Non-duty hours: Post SDO, 563-6026/6027/1515.

b. Unit will provide information at appendix E. DO NOT DELAY THE REPORT FOR INCOMPLETE INFORMATION. Forward all available information immediately to MSO or the post SDO.

c. MSO (duty hours) or the post SDO (non-duty hours) will notify key personnel listed at appendix F.

(1) Secretary General Staff (SGS) will be the first person notified and will immediately notify the CofS. The CofS will then determine time and location for key personnel to meet if necessary.

(2) During non-duty hours the on call safety specialist will be notified next. The on call safety specialist will notify the MSO Safety Director.

(3) The remainder of key personnel (see appendix F) will be notified of accident and time and location of meeting if required.

(4) List of current phone numbers on all applicable personnel (office and home) will be maintained at MSO and post SDO.

d. MSO or the post SDO will immediately notify the Commander, USASC by telephone at Defense Switching Network (DSN) 558-2660/4273. All information at appendix E will be provided. Do not delay notification if information is not complete.

e. MSO will notify HQs, TRADOC of all accidents.

(1) Duty hours: HQs, TRADOC, Command Safety Office DSN 680-3357.

(2) Non-duty hours: HQs, TRADOC, Command Center DSN 680-2256.

f. DPW, Environmental Office, 596-6108, will be notified as soon as possible when hazardous materials are involved in an accident.

g. Key personnel will meet at the time and location determined by CofS. Based on the advice of the Safety Director, the CofS (after receiving guidance from the CG) will issue instructions to implement the investigation plan and appoint a board president (if USASC is not sending board members).

9-5. Accident Scene Preservation and Security.

a. The first commander or highest ranking individual will take charge in the unit chain of command will ensure the accident scene is secured to prevent disturbance of the site or movement of wreckage and equipment until relieved by proper authority.

b. The president of the accident investigation board in conjunction with MP/Criminal Investigation Division (CID) will provide the securing unit with instructions on which personnel are allowed access to the accident scene.

c. Initially only those actions necessary for rescue or recovery of victims, prevention of further injury or damage and the initial on-site investigation by MP/CID will be allowed. Whenever possible, photographs of the location of victims, vehicles or equipment should be taken before movement.

d. Since MP/CID investigators and MSO personnel will normally be some of the first personnel on site once notified, they will become familiar with the provisions of AR 385-40, paragraph 5-4 and brief personnel providing site security on their responsibilities. MSO and MP/CID personnel will coordinate on-site to ensure all provisions of AR 385-40, paragraph 5-4 are addressed.

e. If hazardous materials are involved, security guards will be placed a safe distance from the site.

f. If the accident occurs off-post, MP/CID personnel must coordinate security requirements with the local police, sheriff, or highway patrol.

9-6. MSO Responsibilities.

a. Provides accident investigator capable of responding within two hours of notification.

(1) Assesses situation at accident scene.

(2) Initiates investigation and information gathering.

(3) Advises the CofS in preparing instructions for key personnel.

(4) Provides board member for Installation-Centralized Accident Investigation Ground (I-CAIG), or Safety Office Point of Contact (POC) if USASC provides CAIG board.

b. Assumes overall installation responsibility for accident investigation (until board president is appointed).

c. Coordinates and/or provides information to USASC and HQ, TRADOC per paragraphs 9-4d and 9-4e.

d. Ensures preliminary actions (see appendix G) are initiated by the appropriate FLW agencies. Responsibilities are outlined in this chapter.

e. Coordinates with MPs and unit securing accident scene to ensure proper procedures are followed.

f. Coordinates with USASC to determine support requirements for CAIG board members and/or advisors.

g. Identifies requirements/qualifications for local board members and provides information to DPTM (for tasking).

h. Prepares accident investigation board appointment orders for CG's General Court Martial Convening Authority (GCMCA) signature (see appendix H for format).

i. Coordinates with appropriate agencies to obtain personnel, medical, training and driving (OF 346, US Government Motor Vehicle Operator's Identification Card) records.

j. Obtains items listed in appendix G, paragraph G-1g from appropriate agencies.

k. Coordinates billeting for board members (if necessary).

l. Advises the president of the accident investigation board.

m. Maintains roster of office/home phone numbers for key personnel to be contacted in case of accident. Further ensures post SDO receives a copy of the roster.

n. Responsible to provide an accurate roster to the post SDO with update as changes occur.

o. Reviews and updates this chapter as necessary.

9-7. Board President Authority/Responsibilities.

a. The board president will report directly to the Commander, MANSCEN.

b. The board president is responsible for conducting a timely, in-depth investigation IAW AR 385-40.

c. The board president has authority delegated by the Commander, MANSCEN to determine the scope, equipment, technical assistance and other support necessary to accomplish the investigation.

d. The board president has the authority to direct additional support tasking from installation organizations.

e. The board president will ensure that the safety accident investigation team has priority to access the accident scene, witnesses and equipment involved. He will ensure that all collateral investigations have access to the accident scene and to witnesses once released by the accident investigation board.

f. The board president will become familiar with procedures and requirements contained in AR 385-40, the current guidance from TRADOC (provided by TRADOC regulation or separate memorandum), and this chapter.

9-8. Support By Installation Activities.

a. CofS -

(1) Receives guidance from the CG on convening accident investigation board. Since appointing authority is GCMCA, authority to convene board cannot be delegated.

(2) Ensures that all installation activities give priority support to accident investigation.

b. Director, CPAC -

(1) Maintains a list of personnel (civilian), typists, capable of transcribing from tapes.

(2) Provides personnel records (if civilian employee is involved in accident).

(3) Provide other support as required by the president of the board.

c. DPW -

(1) Provides technical advice/expertise and equipment as necessary to support accident investigation. This may require providing personnel as board members.

(2) Provides maps, plans and drawings as needed to support investigation.

(3) Assigns priority to billeting for board members.

(4) Provides other support as required by board president.

d. Director of Health Services -

(1) Provides qualified personnel as needed to be accident investigation board members.

(2) Provides results of autopsy and other tests (blood and urine) samples when requested by board president.

(3) Provides medical records of personnel involved in accident to investigation board.

(4) Provides other support as required by president of the board.

e. DOL -

(1) Provides qualified personnel as needed to be accident investigation board members.

(2) Provides personnel, equipment and facilities as needed for recovery and technical inspection of equipment involved in accidents. Equipment involved in the accident will not be moved without approval of the accident investigation board president.

(3) Provides transportation motor pool (TMP) vehicles to support the accident investigation as needed.

(4) As part of the technical inspection, obtains fuel and oil samples of the vehicle involved in the accident and forward samples to appropriate agency for analysis.

(5) Provides other support as required by board president.

f. Director of Military Personnel -

(1) Provides personnel records of those individuals involved in the accident to the accident investigation board.

(2) Provides other support as required by board president.

g. DPTM -

(1) Tasks MANSCEN units based on input from board president.

(2) Provides photographer and photo lab support.

(3) Provides aviation support as needed.

(4) Obtains any special security/access clearances necessary for access to the accident scene or records for board members.

(5) Schedules work area (small classroom) for accident investigation board.

(a) Work area will be assigned for duration of accident investigation.

(b) Work area will be capable of being secured when not occupied.

(c) Work area will be large enough to conduct witness interviews and deliberations.

(d) Work area will have a telephone with DSN access.

(6) Provides other support as required by board president.

h. Commander, United States Army Criminal Investigation Command (USACIC), FLW Resident Agency provides copy of report and photographs upon request by president of the board.

i. Commander, Law Enforcement Command -

(1) Provides initial site security and traffic control at accident scene.

(2) In conjunction with president of the board and/or MSO, provides instruction to unit securing accident scene.

(3) When accidents occur off-post, coordinates with local authorities for security of accident scene.

(4) Provides copies of reports and photographs to accident investigation board upon request.

(5) Becomes familiar with provisions of AR 385-40 and TRADOC instructions on accident investigation.

(6) Provides other support as required by board president.

j. Supervisors, Detachment 8, 5th Weather Squadron, United States Air Force provides copy of weather conditions/forecast, signed by forecaster.

k. Public Affairs Officer -

(1) The FLW PAO will be the sole releasing authority for information pertaining to accidents occurring under the purview of this plan.

(2) FLW PAO will coordinate any release of information with the CofS, the board president, MSO, Staff Judge Advocate (SJA) and Adjutant General (AG) Casualty Section, as a minimum prior to releasing to the public.

l. SJA -

(1) Provides legal advice as needed to accident investigation board.

(2) SJA may provide typist/stenographer, if necessary.

m. Chief, U.S. Army Logistics Assistance Office (LAO) -

(1) Provides technical advice to accident investigation board.

(2) Acts as liaison with United States Army Armament, Munition, and Chemical Command (AMCCOM), United States Army Tank and Automotive Command (TACOM) and United States Army Troop Support Command (TROSCOM) when necessary.

n. All commanders and directors will -

(1) Ensure that soldiers are cared for and casualties are evacuated and treated as necessary. This includes moving soldiers and security guards to safe distances from danger or hazards.

(2) Secure accident site to prevent disturbance of the site or movement of wreckage and equipment until relieved by proper authority (see paragraph 9-5).

(3) Report accident IAW paragraph 9-4.

(4) Coordinate actions with appropriate authorities (county sheriff, local police, state police, etc) for accidents occurring in areas not under army control.

(5) Minimize environmental damage. Cleanup of oil, fuel and other hazardous spills will be accomplished as soon as possible. Only if a hazard exists, will cleanup take precedence over preservation of accident site.

(6) Ensure access to accident scene is restricted to authorized personnel.

(7) Provide MP/CID personnel access to items of evidence that could be destroyed by time or the elements before the CAIG board arrives at the accident site.

(8) Provide qualified personnel to serve as members of the accident investigation board.

(9) Designate a single POC, normally at battalion level, to liaison between the unit and the accident investigation board.

(10) Provide copies of training and driving (OF 346 and DA Form 348 (Equipment Operator's Qualifications Record)) records to accident investigation board.

(11) Provide other support as required by board president.

o. SGS -

(1) Ensure a copy of this chapter is contained in the SDO instruction book.

(2) Maintains a current roster of key personnel which indicates home phone numbers.

9-9. Provisions for Command Review and Briefings.

a. Findings and recommendations of the accident investigation board will be briefed to the appointing authority (normally Commander, MANSCEN) and the chain of command of the unit involved, as soon as possible upon completion of the investigation.

b. The written report will be reviewed and approved IAW AR 385-40 and current TRADOC instructions.

Chapter 10
RESPIRATORY PROTECTION PROGRAM (RPP)

10-1. Purpose.

a. This chapter provides requirements to implement an effective RPP IAW 29 CFR 1910.134 (OSHA Standards), ANSI Z88.2 (Practices for Respiratory Protection), AR 11-34 (The Army Respiratory Protection Program), and AR 40-5 (Preventive Medicine).

b. Prescribes policies for selecting, using, controlling, and maintaining respiratory protective equipment (RPE) in a manner that will ensure adequate and proper protection for employees (military and civilian) working in environments containing harmful concentrations of dusts, fires, mists, gases, smokes, or vapors.

c. Delineates responsibilities for the MANSCEN RPP.

d. Applies to all activities using or having need for RPP or personnel involved in the operation of the RPP.

e. This regulation does not regulate the wearing and use of tactical protective masks and equipment. These protective masks will not be used in lieu of approved respiratory protection devices (RPD).

10-2. Policy.

a. OSHA has set up standards regarding permissible exposure limits (PEL) for those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. The primary objective is to eliminate or reduce employee exposure to below the PEL. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general or local ventilation, or substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used.

b. All respiratory equipment will be approved per recommendations by the Industrial Hygiene (IH) staff and Preventive Medicine Service (PMS).

c. Approved RPDs designed to protect personnel from occupational diseases caused by respirable airborne contaminants will be available, used and maintained as required IAW with NFPA 1404.

d. Respiratory protection will be used as a means of controlling employee exposure to airborne environmental hazards under the following circumstances:

(1) When engineering or work practice controls cannot be used to adequately control the hazard.

(2) During intermittent or non-routine operations.

(3) During interim periods while engineering controls are being designed and installed to eliminate the hazard.

(4) During emergencies.

(5) When contamination exceeds the PEL.

e. Wherever economically feasible, and if technology exists for eliminating or reducing the cause of an environmental respiratory hazard, engineering control methods will be implemented. Such methods will include, but are not limited to -

(1) Substitution of less toxic substances.

(2) Installation of local exhaust systems.

(3) Natural or mechanical ventilation.

(4) Segregation or isolation of processes or operations.

f. Respiratory protection will be furnished at no cost to the employee and will be used as a condition of employment where applicable.

g. Respirators will be selected and used based upon the extent and nature of the hazards to which the worker is exposed, the work requirements and conditions, and the characteristics and limitations of the respirator. See appendix I, General Respirator Information. All RPD used will carry the National Institute for Occupational Safety and Health (NIOSH)/Mine Safety and Health Administration (MSHA) approval for the use for which it is intended. RPD equipment will be used only for the intended purposes and modifications to the equipment are not allowed.

h. Employees whose work requires the wearing of RPD will not have beards, sideburns, or other hair that will negate the effectiveness of the respiratory equipment by preventing an effective face piece-to-face seal.

i. Supervisors will enforce the requirements of this regulation and recommend disciplinary action against offenders according to applicable regulations.

j. SOPs will be written to identify respiratory protection requirements, procedures, hazards and responsibilities.

k. Compressed air for human respiration.

(1) Compressed air for breathing purposes will meet the requirements of grade B breathing air.

(2) Air-line couplings will be incompatible with outlets for other gas system to prevent inadvertent servicing of air-line respirators with non-respirational gases or oxygen.

10-3. Responsibilities.

a. Installation Commander will -

(1) Establish an installation RPP IAW this chapter.

(2) Provide funding, facilities and qualified personnel to effectively implement the requirements of this program.

(3) Appoint an Installation Respirator Program Director (IRPD).

(4) Appoint a qualified person from the installation staff to function as the installation respiratory specialist (IRS).

b. Directors, Division Chiefs, and Commanders will -

(1) Ensure respiratory protection is available and utilized by all personnel entering into or working in an atmosphere which is considered hazardous to employee health. Specific examples requiring protection are activities involved in or having spray paint booths, chemical plants, water treatment facilities, emergency rescue personnel, entomology, bulk fuel handling or maintenance.

(2) Ensure their personnel are provided with approved respirators IAW TB MED 502, or appropriate DA guidance.

(3) Ensure that written SOPs are prepared including all information and guidance necessary for proper respirator selection, use, care and maintenance. SOPs will be reviewed during the annual SASOHI.

(4) Ensure the proper respirator is issued and each respirator is complete and serviceable. Respirators should be assigned to individual workers for their exclusive use.

(5) Ensure employees will not be assigned tasks requiring the use of respirators unless it has been determined by PMS that they are physically able to perform their work while wearing the prescribed respiratory protection.

(6) Ensure compressed air cylinders are tested and maintained IAW TB MED 502.

(7) Ensure respirators are maintained IAW manufacturers instructions. Respirators used by more than one person are prohibited unless properly fit tested.

(8) Ensure user is instructed and trained in the proper use of respirators and their limitations.

(9) Require that respirators be stored in a clean and sanitary location. Store respirators in plastic bags or other closed containers to prevent the respirator from being exposed to airborne contaminants during storage.

(10) Ensure that respirators for emergency use will be thoroughly inspected at least monthly and after each use.

(11) Ensure that respirators have a good seal to be effective. Conditions such as a beard prevent a good seal. Employees are not permitted to wear beards or long sideburns that will interfere with a good seal.

(12) Ensure employees complete training requirements. The training requirements will include a proper fit test conducted by the MSO. The completion of training will be documented at the work site by the employee's immediate supervisor. The work site will maintain current records of employees who require the RPP.

(13) Ensure that employees perform required maintenance on assigned respirators.

c. MSO.

(1) Be responsible for implementing the RPP.

(2) Conduct regular inspections of work areas to assure the continued effectiveness of the RPP.

(3) Assure that prompt corrective action is taken on deficiencies which are detected in the RPP.

(4) Request the IH perform surveys where personnel without respiratory protection are working in an atmosphere suspected to be hazardous to health.

(5) Designate, in coordination with the supervisory IH, the type of RPE to be purchased and utilized.

(6) Will serve as the IRPD.

(7) Determine whether or not required RPE is defective.

(8) Provide initial and periodic (annual) respirator fit-testing and training to personnel.

(9) Train personnel in the proper use, limitations, care and maintenance of respirators to include leak tests of respirator before each use.

(10) Assist in reviewing the RPP periodically and conduct on site evaluations to ensure compliance with prescribed directives.

(11) Ensure that prompt corrective action is taken on deficiencies which are detected in the RPP.

(12) Appoint a qualified person to function as the IRS.

(13) Assist commandant/directors in writing SOPs on the RPP.

(14) Approve respiratory protection SOPs before they are published.

d. Chief, PMS will -

(1) Determine personnel and operations that require respiratory protection and provide technical assistance in the selection, and proper use of respirators to the organizational elements that use respirator protection.

(2) Ensure the effectiveness of the RPP in coordination with the MSO.

(3) Prescribe and disseminate instructions as to the type of respiratory equipment to be used.

(4) Designate the type of equipment to be purchased and used, and assist in the establishment of methods and procedures by which the RPE will be ordered, maintained, and/or replaced.

(5) Provide direction to the IRPD to plan, program and annually evaluate the installation RPP.

(6) Provide quarterly quality assurance testing of compressed air used for human respiration.

e. The Occupational Health, PMS will -

(1) Determine if workers assigned to tasks requiring the use of respirators are physically and physiologically able to perform work while wearing prescribed respiratory protection. The medical status of the user will be reviewed periodically. Frequency will be at the discretion of PMS based on the type of RPD used, age of the individual, and the results of appropriate medical examinations.

(2) Make results of determinations known to supervisors as to whether each respective employee is able to wear respiratory protection and perform work required, and coordinate with CPAC where necessary.

f. DPW, Fire Prevention and Protection Branch, will -

(1) Maintain all Survivair Self-Contained Breathing Apparatus (SCBA) used at FLW with exception of egress capsules placed at designated station.

(2) Be available on an “on call” basis for any emergency situation where a SCBA would be required to enter a contaminated atmosphere.

(3) Refill all types of SCBA equipment used by government agencies on FLW.

g. CPAC will -

(1) Assist supervisors in processing disciplinary action against employees for failure to use respiratory protection where required.

(2) Assist supervisors in relocating and retiring those employees who have been determined by the PMS as unable to perform their required work while wearing RPE or RPD.

h. DOL, Installation Supply Division will -

(1) Ensure that requests for respiratory masks, filters and replacement parts are ordered by the organizational property book through the installation supply activities. Priority to be determined by the commander.

(2) Issue respirators and accessories only after personnel are cleared by qualified personnel, utilizing MED Form 292-R (Respirator Fitting Card) (see respirator fit-test and issuance at appendix J).

i. Supervisors will -

(1) Ensure that proper RPDs are used by employees where required.

(2) Ensure that employees adhere to the instructions relative to the proper use, care, and maintenance of the RPD.

(3) Enforce the provisions of this regulation.

(4) Ensure that the respirator is stored in a clean and sanitary location within the work center, to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals (RPE will not be stored in such places as tool boxes unless they are in carrying cases or cartons).

(5) Ensure conditions do not exist which will prevent the RPD from providing a good face piece-to-face seal. Such conditions may be a growth of beard, sideburns, or skull cap that projects under the face piece. The absence of one or both dentures can seriously affect the fit of a face piece.

(6) Ensure contact lenses are not worn with full-face piece respirator.

(7) Ensure that corrective spectacles (goggles) are worn so as not to affect the fit of the face piece (systems have been developed for mounting corrective lenses inside full face pieces). Corrective lenses and face pieces will be fitted by personnel at PMS.

(8) Inform employees of the physical requirements (i.e., lifting, wearing of respirator) when working in contaminated areas and include requirements in individual job descriptions.

j. Employees will -

(1) Be ultimately responsible for their own respirator.

(2) Ensure that their respirator has no holes, cracks, or leaks before each use (see appendix K).

(3) Perform negative and positive prescribed tests before each use to ensure proper face seal.

(4) Notify immediate supervisor if it is suspected that respiratory protection is needed or that the respirator is defective.

(5) Adhere to instructions governing the proper cleaning of the respirator (see appendix L).

(6) Store the respirator in a clean, sanitary location when not in use.

(7) Not have beards, sideburns or other facial hair that negates the effectiveness of the respiratory equipment.

Chapter 11
LOCKOUT/TAGOUT OF HAZARDOUS ENERGY SOURCES

11-1. Purpose. This chapter establishes responsibilities and procedures for protecting personnel in, on, or around machines or equipment during repair or maintenance operations from injury due to unexpected energization, start-up, or release of stored energy from the equipment or process.

11-2. Policy. This is a mandatory program and all MANSCEN personnel must comply with all elements of the lockout/tagout of hazardous energy sources as specified herein. Appendix M gives a list of hazardous energy sources.

11-3. Responsibilities.

a. Commander, MANSCEN will ensure a lockout/tagout program is established and implemented for the protection of personnel for accidental energization or start-up of equipment during maintenance/repair.

b. MSO will -

(1) Monitor the effectiveness of this program during scheduled inspections and spot checks of work sites.

(2) Conduct train-the-trainer classes for supervisors, who will be responsible for training their employees quarterly.

c. Commanders, Directors and Chiefs, Staff Offices/Departments will -

(1) Ensure employees required to use lockout/tagout devices are trained in the purpose and use of the lockout/tagout procedures.

(2) Provide the necessary equipment to accomplish the safe lockout/tagout of energy sources during maintenance or repair of equipment. These devices shall not be used for any purpose other than to lockout or tagout energy sources. Tagout device attachment means (i.e., nylon cable ties) shall be non-reusable and must withstand 50 lbs of tension (static pull).

d. Supervisors will -

(1) Ensure all employees required to work on hazardous energy source equipment have been trained in all aspects of lockout/tagout procedures.

(2) Conduct periodic inspections to ensure all elements of this regulation are being followed by employees.

(3) Be responsible for removing lockout/tagout devices in the event the employee who installed the devices is unable to remove them (appendix N contains procedures for removal).

(4) Ensure all lockout/tagout devices or signs are checked after any prolonged absence by the worker such as overnight. This ensures they are still in place and functioning as installed. Procedures are -

(a) Lockout/tagout log book for each shop.

(b) Log book shall have both employee and supervisor signature for each lockout/tagout.

(c) Each lockout/tagout shall have a time period with updated signatures at expiration of lockout/tagout.

(5) Ensure all lockout/tagouts are logged with the supervisor of the responsible shop, as installed and removed to ensure that devices are not left in position where they are no longer required.

e. Employees will -

(1) Comply with all procedures herein to prevent accidental start-up of equipment/systems while performing maintenance or repair.

(2) Be knowledgeable of the equipment being serviced, the type of energy and its hazards, and how to isolate the equipment from all energy sources.

11-4. Procedures.

a. All maintenance employees are required to locate and identify all isolating devices to be locked or tagged out because more than one energy source maybe involved in the lockout/tagout process (see appendix O for examples of lockout/tagout devices).

b. Individual(s) performing maintenance will notify all affected employees that a lockout is required and the reason for the lockout.

c. If the equipment is operating, it must be shut down by the normal stopping procedures (depress stop button, open toggle switch, etc.).

d. Operate the switch, valve and other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, etc.) is disconnected or isolated from the equipment. Stored energy such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems and air, gas, steam or water pressure, etc., must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding-down, etc.

e. In some electrical component or systems it is required to diagnose the system during periods of operation. Examples, diagnose malfunction of a motor starter, control panel, circuit breaker control relay or protective relays. The replacement of component parts of these systems should be replaced with the system de-energized.

f. Lockout/tagout the energy isolating devices.

g. After ensuring that no personnel are exposed, test to verify that the energy source is disconnected by operating the push button or other normal operating controls to make certain the equipment will not function. Return the operating controls to the neutral position following this test.

h. The equipment is now locked out.

i. All employees shall ensure that all tools have been removed and guards reinstalled as a prelude to restoring equipment that has been locked or tagged out, restoring equipment to service requires ensuring no one is exposed in the equipment area, removing energy isolating devices and restoring energy to the equipment.

j. Removal of lockout/tagout devices by persons other than the employee(s) who applied them, is not authorized unless circumstances are such that the employee(s) who applied them is/are unable to remove them (appendix N has proper procedures for removal).

k. Procedure involving more that one person -

(1) Each employee performing maintenance on the same equipment/machine as other employees shall place his/her own personal lockout or tagout on the energy isolating device(s).

(2) As each employee no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the energy isolating device(s).

(3) Shift or personnel changes. If work on equipment is required by the next shift, the employee(s) shall affix their tag to the equipment identifying them as the responsible party for locking or tagging out the energy sources to the equipment. The employee replacing the existing lock or tag should follow procedures in paragraph 11-4a thru h.

Chapter 12
JOB HAZARD ANALYSIS (JHA)

12-1. Purpose. The purpose of a JHA is to make the job safer and more efficient by determining how work is done, where work is done, changes in work methods and environment and how these conditions create hazards for the worker.

12-2. General.

a. All jobs require some analysis of hazards involved along with some form of documentation concerning the hazard potential. Based on the job's hazard potential, documentation will be prepared using the following guidelines:

(1) For hazardous operations or training which does not involve repetitive actions, or involve more than one person, or is too broad in scope for JHA, conduct a risk assessment IAW FLW Reg 385-5.

(2) For jobs involving repetitive tasks and the possibility of injury exists conduct a JHA according to this regulation.

(3) For office and clerical jobs, complete ergonomics forms (MED Form 206 (Health Hazard Information Module Field Survey Form (complete backside of form)) and MED Form 734 (Preventive Medicine Ergonomics Checklist).

(4) For low hazard potential jobs (other than office) submit a list to MSO.

b. Identifying hazards and safe procedures are part of a supervisor's job and should be one of the first steps taken when a new job is created or an existing job or task is revised or modified. The JHA is done by the two individuals most qualified to evaluate the job; the first line supervisor and the person who actually does the job.

12-3. Risk Assessment/JHA. The JHA is an abbreviated method of risk assessment. It is less complex and detailed than the risk assessment.

12-4. Responsibilities. Commander/directors will -

a. Ensure a JHA is conducted for each position (military, civilian, and non-appropriated fund; contractors are excluded) by selecting one individual within the activity who performs each

specific job, analyzing the job processes, determining job hazards, and developing recommended safe procedures. Concentrate on jobs with greatest potential hazard first.

(1) Clerical and administrative jobs require only office ergonomics information (MED Form 206 (complete backside of form) and MED Form 734). A JHA is not required.

(2) Repetitive jobs like machine operations, warehouse operations, boiler stacking, painting, etc. are appropriate for JHA.

(3) Jobs like exterior electrical repair or construction are too broad to make maximum benefit of JHA. Either break them down into individual tasks, with a separate analysis performed for each task, or do a complete risk assessment.

b. Send a list with justification, to the MSO, of jobs that the commander/director believes a JHA is not necessary (due to low hazard potential).

c. Ensure the completed analysis is used as the safe performance standard for all personnel who do the same job within the activity.

d. Ensure the JHA is used as a training tool for incoming personnel.

e. Ensure the JHA is reviewed at least annually and revised as necessary. Review must be documented.

f. Ensure a copy of the completed JHA is maintained at the work site where it can be reviewed by each worker who performs the job and an information copy is sent to the MSO.

12-5. Steps.

a. Step 1. Break down the job into a logical series of steps. The supervisor and worker must be extremely careful during this phase not to make the job breakdown too detailed (unnecessarily large number of steps) or too general (basic steps omitted).

(1) Observe the task as it is performed.

(2) Record steps in order.

(3) Describe what must be done, not the details of how it is to be done. Usually three or four words are sufficient to describe each basic job step.

b. Step 2. Identify hazards (safety and occupational health) associated with each step. This is the most critical step since only identified hazards can be eliminated or reduced.

(1) Observe each step of the job, as it is performed, for hazards and potential hazards.

(2) Discuss the job with the person who performs the job.

(3) Review past accidents and incidents that occurred while the job was being performed.

(4) Use Health Hazard Information Module (HHIM) information, if available. This information is kept at PMS, IH section, for hazards that can be physically measured (air quality, chemical fumes, dust levels, noise levels, etc). Office ergonomics information is also recorded on MED Form 206, but is kept at unit level with an information copy sent to IH.

(5) Some examples of hazards (not all inclusive) are:

(a) Stuck by object.

(b) Contact with hazard (electric shock, hot surface, extremely cold surface, etc).

(c) Toxic chemicals.

(d) Toxic fumes or particles in the air requiring respiratory protection.

(e) Potential for repetitive motion injuries.

(f) Potential for falling (work surface) or being caught between objects.

c. Step 3. Develop procedures to eliminate or reduce the hazard. There must be one or more controls identified for each hazard.

(1) Some (not all inclusive) principal solutions follow:

(a) Change the physical conditions that create hazards.

(b) Change work procedures.

(c) Reduce the frequency of the task.

(d) Substitute non-hazardous materials, if possible.

(e) Provide PPE.

(f) Provide training and/or require certification.

(2) Make procedures as specific and as concrete as possible.

(a) Recommended precautions such as “be careful’, “stay alert”, or “use caution” are too generic to be useful.

(b) A recommended precaution should clearly state what should be done and how to do it. For example, the recommendation “Make sure the wrench does not slip or cause loss of balance” would not be adequate because it is not specific enough. A more acceptable recommendation would be “Set wrench securely, then test the grip of wrench by applying a slight pressure. Brace yourself against an immovable object prior to exerting full pressure to ensure you do not lose your balance should the wrench slip.” This recommendation tells the worker how to prevent injury during a job step.

12-6. JHA Worksheet. JHA must be documented. Examples are at appendix P. As a minimum, worksheet must include the following:

a. Header information.

(1) Job title.

(2) Organization/unit,

(3) Date JHA completed/revised or date of annual review.

(4) Name of person conducting JHA.

(5) Name of person approving JHA (must be at least first line supervisor).

b. Job steps.

c. Hazards associated with job steps.

d. Recommended precautions.

e. Required/recommended PPE.

f. Required/recommended training and/or certification.

Chapter 13
INSTALLATION TOXIC CHEMICAL SAFETY PROGRAM

13-1. General. This chapter prescribes the policies and procedures for complying with applicable standards and health regulations for training with chemicals. The chapter is broken down in to two parts.

13-2. Part I. Installation Toxic Chemical Safety Program.

a. Purpose. Part I of chapter 13 prescribes the installation policy, scope, and responsibility for the Toxic Chemical Agent Training (TCAT) Safety Program and applies to all personnel (military, civilian, contractor, and visitors) associated with Chemical Defense Training Facility (CDTF). This chapter will not be interpreted to conflict with higher authority regulations or directives, but will serve as a supplement. This chapter implements AR 385-61, the Army Chemical Agents Safety Program; DA Pam 385-61, Toxic Chemical Agent Safety Standards; TRADOC Reg 385-1, Safety Regulations for Toxic Chemical Agents GB and VX; AR 50-6, Nuclear and Chemical Weapons and Material, Chemical Surety; DA Pam 50-6, Chemical Accident or Incident Response and Assistance (CAIRA) Operations; and subsequent guidance.

b. Policy. The TCAT Safety Program is designed to -

(1) Ensure that safety practices and standards are incorporated into local SOPs.

(2) Ensure that operations are in compliance with the DA, TRADOC, and OSHA requirements to the maximum extent possible.

c. Responsibilities.

(1) FLW CG is responsible for all TCAT related operations conducted on FLW. The commander will designate -

(a) A Chemical Agent Safety Officer (CASO). The CASO will be a journeyman or higher level Safety and Occupational Health Specialist assigned to the MSO.

(b) A Chemical Surety Officer.

(c) A primary, alternate and tertiary Chemical Accident Incident Response Officer (CAIRO). The primary and tertiary CAIRO will be a chemical officer from outside the CDTF.

(2) The MANSCEN Safety Director, as the Occupational Safety and Health Official, is responsible for the administration, management and direction of the TCAT safety program. The MANSCEN Safety Director will maintain close coordination with the Director of CDTF, the chemical surety officer, and the medical officer. He or she will also ensure that monthly inspections are conducted of the CDTF.

(3) Each director through the lowest echelon of supervision is responsible for conducting safe and healthful operations within their area of responsibility.

(4) Each employee is responsible for following instructions.

d. Agent Information. (Note: The MSO will monitor Material Safety Data Sheets (MSDSs) for all agents used at the CDTF and provide copies of MSDSs upon request). Additional and most recent information regarding toxic agents should be obtained from the MSDSs.

(1) GB and VX are rapidly acting lethal nerve agents. The agents are classified as class A poisons by the Department of Transportation and chemical group A by Army Material Command (AMC). They belong to storage compatibility group K.

(2) Hazards.

(a) GB is primarily a vapor inhalation hazard although it may be absorbed through the eyes or skin. It is highly toxic, quick acting, and non-persistent.

(b) VX is encountered primarily as a liquid which is readily absorbed through the skin although it may be contacted as a mist or vapor. It is slow to evaporate and is persistent for several days.

(3) Nerve Agent Symptoms.

(a) Nerve agents first indications of liquid exposure may be localized sweating and muscular twitching. Further systemic symptoms listed below may follow.

(b) Aerosol or vapor exposure may produce pinpointing of the eye pupils, runny nose, tightness of the chest.

(c) Later symptoms (indicating severe exposure to either liquid or vapor) are nausea, diarrhea, weakness, coma, cessation of breathing, and death.

(4) Exposure Limits. Personnel exposure, point source emissions, and exposures to non-related personnel will be managed IAW AR 385-61, and DOD 6055.9-STD. Exposure to other chemicals will be controlled IAW the latest published guide.

e. Agent Monitoring Requirements.

(1) Various detection methods and equipment are available and will be utilized as required by DA Pam 385-61. Real time, low-level monitors with alarms will be utilized whenever personnel are allowed to enter the CDTF training building containing GB and/or VX.

(2) The type of agent detection devices, number and positioning of devices will be outlined in the site safety submission plan located on file at the CDTF.

(3) Monitoring requirements will be stated in greater detail in the CDTF SOPs.

(4) First Entry Monitoring.

(a) For all locations containing toxic chemical agents, monitoring will be accomplished to ensure personnel conducting operations will be properly protected. First entry monitoring of facilities will be accomplished prior to each day's operations IAW DA Pam 385-61.

(b) Personnel will wear appropriate protective clothing and carry detection equipment as described in DA Pam 385-61.

(c) Supervisors will ensure personnel entry records will be completed for each toxic chemical site entry each day. Records will be maintained. Copies of laboratory and monitoring results will also be maintained and included in the long term exposure records program.

f. Personal PCE.

(1) Levels of protective clothing and determination of the level of protection required for various conditions will be IAW DA Pam 385-61.

(2) Local SOPs will specify the level of protection required for each operation.

(3) Laundering, inspection, testing, and issuing of toxicological agent protective (TAP) clothing will be IAW DA Pam 385-61.

(4) A RPP that complies with TB MED 502 and section II of this chapter will be established and maintained. The essential elements of the program will comply with DA Pam 385-61.

(5) Provisions of DA Pam 40-8 will be complied with.

g. Decontamination and Disposal.

(1) Procedures for decontamination of personnel, equipment, and facilities will be specified in local SOPs for each operation. Procedures will be IAW DA Pam 385-61.

(2) Disposal procedures will comply with DA Pam 385-61 and all state and federal environmental laws.

h. Safety Criteria For Agent Activities.

(1) All toxic agent procedures and operations will have detailed local SOPs prepared in advance IAW CDTF policy.

(2) A risk management worksheet will be prepared IAW FLW Reg 385-5.

(3) Pre-operational (PREOP) surveys are required on all new operations where site plans/safety submissions are required. Operating personnel will give written notification to the safety director three weeks prior to the desired PREOP. This is to allow notification to higher HQs as required by DA Pam 385-61. PREOP surveys conducted by CDTF personnel will be conducted with MSO oversight and approval.

(4) Site Safety Submission Plans (SSSPs) are required for all sites where TCAT will be conducted. In order to assure timely processing of SSSPs, operating personnel will submit requests for SSSPs to the MANSCEN Safety Director 120 days prior to the anticipated commencement of operation. If these requests are submitted with less than 120 days lead time, an impact statement must be provided in order to justify priority processing of the SSSPs.

i. Personal Protective Practices.

(1) CDTF training program for personnel will be provided IAW AR 385-61, and AR 11-34.

(2) Personnel Safeguards.

(a) Personnel changing into protective clothing level A through E, from street clothes, will remove all personal clothing including underwear, shoes, piercings, hairweaves, etc.

(b) Personnel issued protective masks and/or respirators will be properly fitted and trained in the use and care of the device and the means by which it gives protection. Additional information can be obtained from part II to this chapter.

(c) Personnel requiring SCBA will be certified (fitted and trained), as appropriate, IAW AR 11-34.

(3) Personnel with open sores or wounds will report to the Occupational Health Nurse for evaluation and/or impermeable dress prior to admittance to the area. Temporary restrictions from agent activities will be imposed as deemed appropriate by the medical authorities.

(4) Personnel will shower at the end of each TCAT or entry into the toxic chemical agent area.

(5) A minimum of two people knowledgeable in agent exposure symptomatology, first aid, and treatment will be present during agent operations. They will remain in visual or radio contact with each other at all times or within the immediate access area when communication is provided and observation by CDTF safety control personnel.

(6) Eating, drinking, smoking, and chewing will be permitted only in specifically designated areas. These areas must be approved by the Director, CDTF.

(7) Adequate supplies of decontaminating solutions will be available at agent operational areas when operations are in progress.

(8) Each worker and other personnel who have been in operations involving nerve agents will remain on the installation for at least 30 minutes after leaving the agent area (i.e., laboratory, CDTF training bays), and will be checked for miosis or other symptoms of agent exposure by trained personnel. Any suspected exposure will be reported immediately to safety control. Safety control will make the appropriate notification.

j. Laboratory Safety.

(1) Laboratory safety procedures will be reflected in local SOPs and will comply with the requirements of DA Pam 385-61. To assure those samples that may be above surety levels are identified and handled appropriately, local approved SOPs will be followed.

(2) A daily checklist to assure the presence or function of agent first aid supplies, decontamination materials, ventilation systems, warning signs/labels, SOPs, uncluttered work area and protective clothing will be maintained by laboratory personnel.

(3) A scheduled maintenance program will be established to assure the performance of the ventilation systems. Daily checks of hood face velocity will be conducted as a part of the daily checklist. Ventilation surveys should be performed by IH on a quarterly basis.

(4) Laboratory personnel will check with safety control each morning for any record of MINICAM alarms during non-duty hours. Procedures for first entry monitoring will be followed if any MINICAM alarm occurs.

(5) Protective clothing requirements will be IAW DA Pam 385-61 except where otherwise indicated in hazard analysis and local waivers. Local SOPs will incorporate wearing of protective clothing where appropriate.

(6) Entrances to the laboratory area will be posted with signs warning of the presence of surety material and any special requirements.

(7) Laboratory personnel will be trained in issue and handling of toxic agents, how to don, wear and remove protective clothing, and emergency procedures to be followed in the event of an agent spill or exposure. An agent first aid kit with gauze, decontaminating solutions and instructions for use will be maintained in the laboratory.

(8) Each inner and outer container of agent will be labeled IAW DA Pam 385-61.

(9) To assure validity of results and adequate personnel protection, quality control to include precision and accuracy and establishment of action levels will be maintained for low level sampling methods/monitors IAW AR 385-61.

(10) Laboratory will notify surety office and workers at chemical site of positive monitoring results, out of control situations, or other unusual circumstances which may affect the safety of operations.

(11) Laboratory operations will be conducted IAW DA Pam 385-61.

k. Storage. SOPs implementing the requirements for storage of chemical agents will be established and approved IAW AR 50-6, AR 385-61, DA Pam 385-61 and TRADOC Reg 385-1.

l. Shipping. Off-site transportation of GB or VX manufactured at the CDTF is not authorized.

m. Hazard Communication (HAZCOM). Supervisors will ensure employees are trained in MSDS and HAZCOM, and to ensure MSDSs are readily available. FLW Reg 385-3, HAZCOM Standard Program will serve as the implementing HAZCOM document for CDTF. Director of the CDTF will appoint on orders a HAZCOM officer to serve as a POC on all chemical related issues. A chemical hygiene officer will be appointed for laboratory operations.

13-3. Part II. Toxic and Nuisance Chemical RPP.

a. Purpose. This program document prescribes policies, responsibilities, and procedures for implementation and management of the CDTF's RPP. This program applies only to facilities using toxic chemical agents. It is not designed for industrial or construction operations. For those applications chapter ten of this regulation applies.

b. Policies.

(1) Condition of assignment or employment at the CDTF. As prescribed by AR 50-6 (paragraphs 3-13a(3) and 6-3g) the wear and use of chemical protective clothing and a respiratory protective mask is a condition of assignment and employment at the CDTF and assignment to a Personnel Reliability Program (PRP) Position.

(2) Medical Evaluation. CDTF personnel must undergo medical evaluations as prescribed in AR 40-5, TB MED 502/ DLAM 1000.2, TB MED 509 and CDTF SOP D.

(3) Mask Fit Testing.

(a) All CDTF personnel, students, and support personnel assigned chemical protective masks (military (all services), DOD civilian workers, and on-site contractor personnel) will be quantitatively fit tested with the M41 Protection Assessment Test System (PATS) IAW TC 3-41.

(b) All protective masks issued for TCAT in the CDTF's toxic training area will be quantitatively fit tested with M41 PATS and qualitatively fit tested in CDTF's mask fit chamber using isoamyl acetate (banana oil) or stannic chloride IAW DA Pam 40-8 and DA Pam 385-61, chapter 12. Anyone entering the toxic area for any reason (i.e. hot laundry area, maintenance) will first ensure the seal on their protective mask in the mask fit chamber.

(4) Protective Mask Usage. Protective masks will only be used for approved operations, under approved conditions, or for emergency response situations.

(5) Immediately Dangerous to Life and Health (IDLH) environments. Protective masks will not be worn in an agent environment where nerve agent concentrations (for both GB and VX) exceed IDLH agent concentration levels. Level A may be worn in an IDLH environment under emergency conditions IAW DA Pam 385-61.

c. RPP Requirements. The CDTF will develop a RPP IAW AR 385-61 and DA Pam 385-61. The CDTF RPP procedures will be reflected in local SOPs and will comply with the requirements of AR 11-34 and chapters 10 and 13 of this regulation. All commercially available respirators (non-military) will follow chapter ten of this regulation.

d. Responsibilities.

(1) Director, CDTF.

(a) Establish a RPP which is applicable to CDTF operations and which is consistent with established regulatory and installation program procedures. The RPP must include a written SOP which must be approved by the IRPD.

(b) Appoint a CDTF RPP Officer for implementing approved RPP program procedures.

(c) Enforce RPP requirements for execution of CDTF toxic chemical agent operations.

(2) CDTF RPP Officer.

(a) Oversee implementation and enforcement of all CDTF RPP program requirements and procedures.

(b) Conduct necessary coordination with the IRPD and the IRS for implementation and review of established RPP procedures.

(c) Ensure all CDTF personnel understand and comply with RPP procedures.

(d) Conduct periodic and annual review of RPP procedures to ensure compliance with regulatory changes. Revision of procedures will be properly coordinated and staffed with the Installation Safety/Occupational Health Manager, Installation Medical Authority (IMA), IRPD and the IRS.

(e) Coordinate the required CDTF respiratory training which will be conducted at least annually and will be IAW AR 11-34 requirements.

(f) Ensure procedures for qualitative and quantitative fit testing are properly being conducted.

(g) Oversee all PCE operations for protective mask inspection, testing and certification.

e. Procedures.

(1) Personnel.

(a) All CDTF personnel, instructors and students should understand RPP requirements for wearing protective masks during participation in CDTF toxic chemical agent operations.

(b) All personnel must be familiar with CDTF RPP procedures for the wear and inspection of assigned protective masks.

(c) Instructor personnel must be trained on qualitative and quantitative fit test procedures and requirements.

(d) Site training on respirator fitting procedures, fit/leak test procedures and general maintenance procedures must be conducted for all site personnel.

(e) Proper protective mask qualitative fit tests must be conducted for all students participating in toxic chemical agent operations (and quantitative fit tests for those required).

(f) Protective masks may only be used IAW SOPs and applicable regulations and under approved conditions.

(2) Protective Mask.

(a) Use of Assigned Protective Mask. Canister or filter-element type air-purifying masks can be used where oxygen deficiency is not a factor and chemical agent concentrations do not exceed IDLH levels. This category of protection includes the M40-series masks and other protective masks, as specified in DA

Pam 385-61, paragraph 4-1. All CDTF personnel will be issued an M17, M40 or MCU-2/P series mask for emergency response.

(b) Filter Elements. Canister or filter-elements for all masks approved for use must be approved for their intended use and meet serviceability requirements of applicable TMs and SBs.

(c) Wearer Instructions. The M41 PATS will be used to properly fit CDTF cadre with a protective mask. Individuals will be trained in the use and care of the protective mask and the means by which it gives protection.

(d) Facial Hair. There must be absolutely no interference of any facial hair growth with the sealing surface of the protective mask; this includes beards and sideburns. Personnel with beards will be denied access to toxic agent training and operations. Anyone who needs to grow a beard to effect a cure as determined by their attending physician or dermatologist will be excused from toxic agent training or operations for the extent of the medical profile.

(e) Long Hair. Female soldiers with long hair (and foreign soldiers with long hair) will remove all hairpins, combs, and hair knots, buns, weaves, or braids that interfere with the seal of their protective mask.

(f) Glasses/Contact Lenses. Neither glasses (other than approved fitted optical inserts) nor contact lenses will be worn with the protective mask.

(g) Storage. Protective masks will be stored in conditions, which will not cause deterioration (out of direct sunlight, heat, extreme cold, moisture etc.). Protective masks should be stored in the carriers provided and should be hung by the shoulder strap or D-ring on the carrier or stored in separate bins. Masks not in their carrier may be stored in separate bins.

(3) RPP Training Requirements.

(a) Training. RPP training will be conducted initially and annually for all CDTF and support personnel issued a protective mask.

(b) Training Records. A record of the training and by name roster of attending personnel will be maintained on file for the duration of an individual’s employment. Current copies of training records will be maintained at the CDTF.

(4) Recordkeeping.

(a) CDTF will maintain records for -

1 RPP training (see paragraph 10-3b(12)).

2 All fit and leak testing conducted for CDTF workers assigned a recovery/emergency response mask.

(b) The CDTF will assist the IRS in the maintenance of all records listed in AR 11-34 paragraph 3-9b.

Chapter 14
SAFETY AWARDS PROGRAM

14-1. General.

a. The MSO will establish, fund, and administer the safety awards program for all units and organizations on or supported by FLW, IAW appropriate support agreements.

b. Safety awards will be programmed and budgeted annually.

c. Qualification Standards. Qualification standards and types of awards are specified in this chapter. Commanders are encouraged to adopt similar criteria for their unit safety awards programs, if used.

14-2. Procedures.

a. Commanders of units or directors of organizations falling under the responsibility of MSO will -

(1) Develop a log for accurate recording of AMV miles driven by individual vehicle operators whose primary duty is motor vehicle operator.

(2) Recommend eligible personnel and units/ organizations under their command or control for safety awards. Both civilian and military personnel are eligible for awards.

(3) Recommend eligible drivers for appropriate awards through channels to the HQ level whose commander will sign the certificate. For awards requiring installation or higher signature, forward the request to MSO, 302 Colorado Ave, Bldg. 631, Fort Leonard Wood, MO 65473-8957 and enter awards received on individual's personal records and for safe driving awards entering the award on the DA Form 348.

(4) Obtain award certificates DA Form 1118 (Certificate of Merit for Safety), 1119 (Certificate of Achievement in Safety), and 1119-1 (Certificate of Achievement in Safety) through publication channels. The awards proponent will handle higher awards (installation and TRADOC).

(5) DA Forms 1118, 1119, and 1119-1 will be prepared and presented by the appropriate level of command as stated in paragraph 12-6.

(6) Submit awards requests to MSO, 302 Colorado Ave, Bldg 631, Fort Leonard Wood, MO 65473-8957 for special safety awards for individual, unit, or organization actions contributing to safety and accident prevention.

(7) Present awards at an appropriate ceremony.

b. MSO will -

(1) Provide safety incentive awards to be awarded with certificates.

(2) Process school, branch and MANSCEN level certificates and return to the requesting unit for award ceremonies.

(3) Provide impact safety incentive awards during training, tactical and normal installation operations for observed safety actions or results enhancing mission and soldier safety to units outlined above.

14-3. Incentive Awards.

a. The MSO will maintain a safety incentive awards program that will reward personnel for potential contributions to the installation safety program.

b. These awards will cost less than $7.00 per award and be provided on the spot to the individual following the standard or making a contribution.

c. A supply of incentive awards will be provided to the command sergeant's majors for their use in recognizing personnel.

d. Upon request, incentive awards may be provided to commanders for their use in rewarding personnel.

14-4. Earned Awards.

a. The MSO will maintain an earned safety awards program that will reward personnel for completing a specific number of miles or hours driven or maintaining an accident free record for a specified period of time.

b. These awards will cost more than $7.00 but less than $50.00 per award and be presented to the soldier at an appropriate award ceremony along with a certificate.

c. A supply of earned awards will be maintained by the MSO and issued upon approval of the award request.

14-5. Earned Safety Awards Criteria.

a. United States Army Safety Award. DA Form 1119 is presented to individuals for achievement in accident prevention or for any significant contribution to safety activities. Units or organizations will provide their own cards. This award can be presented as many times as a commander, director or supervisor likes for almost any reason relating to accident prevention. The MSO will not provide a token award for this. However, units may provide additional incentives or tokens as they see fit. This card should be used prior awarding certificates.

b. United States Army Certificate of Achievement in Safety. Commanders present DA Form 1119-1 to individuals for specific achievements in safety. Units and organizations will provide their own certificates for unit level awards. MANSCEN Safety will provide certificates for installation level awards. The battalion commander or civilian division chief should sign first award DA Form 1119-1 and the second award should be signed by the brigade commander or civilian director. In order for soldiers to receive promotion points, it is recommended that a military officer O-5 or above sign the certificate. The CofS for MANSCEN or installation and a commandant for a specific branch will approve and sign the third award. The CG will approve and sign the fourth award. This award is usually lower than the certificate of merit so no higher than four awards will be used. The MSO will provide a token award to accompany this certificate for all four levels.

c. United States Army Certificate of Merit for Safety. DA Form 1118 is presented to individuals and units or organizations for outstanding achievement in accident prevention during activities such as tactical operations and training, equipment maintenance, fire prevention, life saving or rescue work, significant safety act, or other commendable contributions to safety activities. Units or organizations will provide their own certificates for unit level awards. MSO will provide certificates for installation level awards. This award has four levels and should be provided in order. However, if an individual, unit or organization deserves fifth and higher awards, they will be considered as requested. The battalion commander or civilian division chief should sign first award DA Form 1118 and the second award should be signed by the brigade commander or civilian director. In order for a soldier to receive promotion points it is recommended that a military officer O-5 or above sign the certificate. The CofS for MANSCEN or installation and the commandant for a specific branch will approve and sign the third award. The CG will approve and sign the fourth and greater awards. The MSO will provide a token award to accompany this certificate for all four levels.

d. Safe Driving Awards. This award is for an individual (civilian or military) who has a primary duty as a driver. Examples are drivers of AMVs, TMP vehicles, army combat tracked vehicles (ACVs) and material handling equipment (fork lifts) who complete the following without an "at fault" military or civilian on duty accident or moving violation. A DA Form 1119-1 and a token award will be provided to the individual.

Awarding Level					
Months *		TMP or AMV Miles	Vehicle Miles	Tactical ACV Miles	MHE Hours
			Battalion/Division		
12	OR	10,000	3,000	1,500	1,500
			Brigade/Directorate		
24	OR	15,000	5,000	2,000	2,000
			School/MANSCEN**		
36	OR	20,000	7,000	2,500	2,500
			MANSCEN		
48	OR	25,000	9,000	3,000	3,000

* In addition to time, ½ of mileage/hours in a category must be accumulated. Drivers are considered only if driving is on a routine basis.

** Awards for the three branches would go to school commandant. For all others to the MANSCEN Command Group

e. Drivers award badges are not covered by this chapter and must be processed and approved through the military awards channels.

14-6. Special Act Safety Awards.

a. The MSO will process any award request made by a commander or director whether it fits with the current safety program or not.

b. These awards will be special awards and the commander or director must justify the special award and explain what reward the individual deserves.

c. The MSO will purchase awards for this program as necessary.

14-7. Safety Streamer Awards.

a. The MSO will award a green safety streamer to any unit or organization (company or division size or higher) that completes one year without a recordable accident or driving while intoxicated (DWI)/driving under the influence (DUI).

b. Commanders will forward a signed request for this award through the Provost Marshal to verify no DWIs or DUIs to the MSO, 102 Colorado Ave, Bldg 631, Fort Leonard Wood, MO 65473-8957.

14-8. Safety Day Booster Awards.

a. The MSO will publish specific requirements for these awards in the annual safety day operations order (OPORDER).

b. These awards will be given to an officer, NCO, soldier, civilian supervisor, civilian employee, and a person in a special category for support of the installation safety program during the previous year. Commanders and directors must nominate their personnel for these awards.

c. A second set of awards will be provided to personnel who made significant contributions to safety day itself. These personnel are nominated after safety day.

14-9. Safety Day Prizes and Awards.

a. The MSO will publish specific guidance on these awards in the annual safety day OPORDER.

b. These awards will normally consist of prizes to be awarded for participants of the safety day game show and audience members who answer safety questions correctly.

c. Additional prizes are given away at the safety day fair through a raffle style drawing.

d. These prizes and awards are funded through donations arranged by the Director of Moral, Welfare, and Recreation.

14-10. Major Command (MACOM) Safety Awards. MACOM awards are outlined in AR 672-74 with the nomination routed through MSO. All personnel, units, and organizations at FLW are eligible for these awards. For additional information, refer to AR 672-74. These awards include -

a. Award of Excellence in Safety Plaque. MACOM commander awards this plaque for a three year, accident free record.

b. Army Accident Prevention Award of Honor in Safety. MACOM commander will present a DA Form 5758 (Army Accident Prevention Award of Honor in Safety) for a two year, accident-free record.

c. Army Accident Prevention Award of Accomplishment in Safety. MACOM commander presents a DA Form 5775 (Army Accident Prevention Award of Accomplishment in Safety) to a unit or organization for an accident-free year.

d. CG's Special Safety Award. MACOM commander presents a DA Form 5776 (Commander's Special Safety Award) to units and organizations for exemplary safety performance.

14-11. Department of the Army (DA) Safety Awards.

a. CofS, Army, Award for Excellence in Safety.

b. DA Form 5777 (United States Safety Guardian Award).

c. Director of Army Safety Special Award of Excellence.

d. Director of Army Safety Award.

Chapter 15
INSTALLATION ERGONOMICS PROGRAM (IEP)

15-1. Purpose. This chapter provides guidance for establishing the ergonomics program component as an integral part of the occupational safety and health program at FLW.

15-2. Scope. This regulation applies to installation-level worksite analysis, hazard prevention and control, health care management, education and training, and ergonomics program evaluation at all units and organizations on FLW.

15-3. Goals.

a. The goals of the ergonomics program are -

(1) Prevent injuries and illness by eliminating or reducing worker exposure to WMSD risk factors.

(2) Reduce the potential for fatigue, error, and unsafe acts by adapting the job and workplace to the worker's capabilities and limitations.

(3) Increase the overall productivity of the work force.

(4) Reduce workers' compensation claims and associated costs.

(5) Improve overall unit readiness.

b. An emphasis on early identification and prevention of WMSDs will preserve and protect our military and civilian work force while decreasing related costs.

15-4. Responsibilities.

a. The MANSCEN CG will -

(1) Appoint an Installation Ergonomics Officer (IEO).

(2) Appoint an Installation Ergonomics Committee as a subcommittee of the OSHAC. Additional information is at appendix Q.

b. The DCD will use ergonomics principles in the process of developing and refining army systems, specifically in army-wide initial equipment design, assessment, and related human performance research.

c. The IEO will -

(1) Inspect programs annually.

(2) Provide an annual assessment of installation program.

(3) Provide training for unit/organization Ergonomics Program Coordinator.

(4) Conduct specialized assessments of work areas upon unit/organization request.

(5) Serves as the Chairperson for the Ergonomics Committee.

d. Commanders and Directors will -

(1) Appoint a unit or directorate ergonomic program coordinator.

(2) Ensure that the unit or directorate ergonomic coordinator is properly trained.

(3) Ensure an ergonomics assessment is conducted for all work sites.

(4) Take steps to correct hazards identified during the ergonomics assessment.

(5) Ensure personnel who report an injury or pain suspected to have been caused by the work site are referred to occupational health at the General Leonard Wood Army Community Hospital (GLWACH).

e. Individuals will -

(1) Comply with work site requirements to prevent ergonomic hazards.

(2) Report any ergonomic hazards to their supervisor.

(3) Report any pain or injury believed to have been caused by the work site to their supervisor.

f. Installation Ergonomics Committee will -

(1) Meet quarterly to discuss the conduct and improvement of the IEP.

(2) Assist the IEO in conducting an annual program assessment.

(3) Recommend improvements to the program.

(4) Develop, document, and maintain the installation ergonomics plan. They may -

(a) Solicit input to the plan from health care providers, including physicians, nurses, occupational therapists, physical therapists, and physician assistants.

(b) Integrate the plan with the installation or activity health promotion and wellness program coordinator as appropriate.

(c) Request technical assistance on plan development from USACHPPM TG 6220 (paragraph 1-10).

g. The installation OSHAC recommends the installation ergonomics plan to the commander for approval and communicates the plan to all managers, supervisors, and workplace personnel.

15-5. Organizational Involvement. A collaborative partnership among all levels of the working community is essential in achieving the goals of the ergonomics program. Command emphasis, commitment by management, and demonstrated visible involvement are imperative to provide the organizational resources and motivation needed to implement a sound ergonomics policy. All levels of personnel (manager, supervisor, worker, and soldier) are responsible for injury prevention and the identification and resolution of WMSDs.

15-6. Effects of Work Related Muskoskeletal Disorders (WMSD).

a. Health effects. Repeated biomechanical stress and microtrauma cause or aggravate WMSDs. Over time, repeated microtrauma can evolve into a painful, debilitating state involving muscles, tendons, tendon sheaths, and nerves. Examples of WMSDs are -

(1) Tendinitis.

(2) Tenosynovitis.

(3) Bursitis.

(4) Chronic muscle strain.

(5) Nerve entrapment syndromes (for example, carpal tunnel syndrome).

b. Economic effects. The expense associated with a poorly designed workplace is considerable and includes both direct and indirect costs.

(1) Direct costs include medical treatment, rehabilitation, and worker's compensation costs.

(2) Indirect costs include lost work time, decreased productivity, decreased work quality, retraining costs, and diminished morale.

15-7. Occupational Risk Factors.

a. Research identifies the following as specific workplace conditions that can contribute to the development of WMSDs:

(1) Repetitive motions (especially during prolonged activities).

(2) Sustained or awkward postures.

(3) Excessive bending or twisting of the wrist.

(4) Continued elbow or shoulder elevation (for example, overhead work).

(5) Forceful exertions (especially in an awkward posture).

(6) Excessive use of small muscle groups (for example, pinch grip).

(7) Acceleration and velocity of dynamic motions.

(8) Vibration.

(9) Mechanical compression.

(10) Restrictive workstations (for example, inadequate clearances).

(11) Improper seating or support.

(12) Inappropriate hand tools.

(13) Machine-pacing and production-based incentives.

(14) Extreme temperatures.

(15) Extended exposure to hazardous or annoying noise.

b. The combined effect of several risk factors in one job or workstation may lead to a higher probability of causing a WMSD.

15-8. Work Site Analysis.

a. Problem Identification. Use the following procedures of systematic passive and active surveillance to identify jobs or worksites with WMSD risk factors.

(1) Systematic passive surveillance. This procedure involves the analysis of data provided in existing monthly or quarterly reports. This analysis can identify WMSD problems, set intervention priorities, and organize the ergonomics effort. The office responsible for maintaining the records, logs, or reports should perform the systematic passive surveillance and communicate the results to the IEO and the ergonomics subcommittee. Sources of data include -

(a) Routine injury and illness reports, including DA Form 3076 (Army Occupational Health Daily Log).

(b) Log of Federal Occupational Injuries and Illnesses or equivalent.

(c) Federal Employee Compensation Act (FECA) claims.

(d) DA Form 285 and DA Form 285-AB-R.

(e) Medical and safety records.

(f) Work force reports (including civilian and active-duty personnel and pay reports of lost duty time as a result of injury or illness) and suggestions.

(2) Systematic active surveillance. This procedure involves focused and active efforts to gather information about WMSD hazards at worksites and to identify workers at risk of developing a WMSD. Trained ergonomics personnel (see glossary) should perform active surveillance in conjunction with IH or safety surveys or regular training.

(a) Examples of active surveillance procedures include:

1 Questionnaires and surveys. Supervisor and worker questionnaires and symptom or body part discomfort surveys provide information about WMSD hazards, often before actual injuries occur (USACHPPM TG 220). Trained ergonomics personnel can administer these surveys during walk-through surveys or as part of regular training.

2 Observation. Direct observation by trained ergonomics personnel conducting regular walk-through IH or safety surveys

can identify WMSD hazards (USACHPPM TG 220). Worker interviews during these surveys can identify tasks or situations that are uncomfortable and may indicate WMSD risk factors. For example, workers note that cold temperatures make it difficult to grip hand tools.

3 Sentinel event or incident reporting. Specific health or performance events, such as wrist pain, back pain, or increased errors, may be indicative of WMSD risk factors. Use a specific reporting procedure to facilitate reports.

4 Case referrals. Use case referrals to identify a work area with potential WMSD risk factors. For example, a laboratory technician seeks medical care for hand and wrist pain and provides an occupational history that indicates possible worksite risk factors.

(b) The presence of one WMSD should trigger an active surveillance survey using appropriate questionnaires or surveys (USACHPPM TG 220). Trained ergonomics personnel should perform systematic active surveillance at all worksites at least once per year. Also, trained ergonomics personnel should perform walk-through surveys for any new or significantly changed job, process, equipment, or method.

(c) In many cases, corrections to the WMSD hazards or risk factors are simple, quick, on-the-spot workplace changes. Trained ergonomics personnel conducting regular walk-through surveys can identify and implement the solution immediately. Chapter four provides information on hazard prevention and control. More complex problems will require prioritization and detailed analysis.

(d) If a worksite or job is identified as high risk, special medical surveillance may be indicated. Chapter five provides information on health care management.

b. Prioritization. The ergonomics subcommittee or the appropriate subcommittee member (for example, IH, safety, health care, etc.) should prioritize worksites for detailed analysis based on the passive and active surveillance information. The prioritization may be based on incidence rates, the number of workers affected, direct costs, lost work time, or severity of cases. Calculate incidence, prevalence, and severity rates by unit, work section, or job series to identify high-risk areas. Use FECA claims information to identify high-cost injuries and high-risk work areas.

c. Detailed Analysis.

(1) To further evaluate those jobs or worksites having WMSD risk factors as determined by systematic passive and active surveillance, complete a more detailed analysis. When conducting the detailed analysis, trained ergonomics personnel should systematically -

(a) Consider the concept of multiple causation (see glossary) and the degree of WMSD risk.

(b) Look for trends, including age, gender, work task, and time of injury.

(c) Identify the work tasks or portions of the process that contain risk factors.

(d) Identify both problems and solutions.

(2) The following data, analysis tools, and methods may be helpful during a detailed analysis:

(a) Incidence and severity rates (Log of Federal Occupational Injuries and Illnesses or equivalent), accident and injury reports, and lost work time or absenteeism reports by job, unit, department, or facility.

(b) Checklists, questionnaires, and interviews (USACHPPM TG 220).

(c) Direct observation, videotape analysis, and job analyses (USACHPPM TG 220).

(d) Tests, such as -

1 Revised NIOSH equation for the design and evaluation of manual lifting tasks.

2 Static and dynamic strength testing.

3 Timed activity analysis.

4 Biomechanical analysis.

5 Cardiovascular measurements.

15-9. Hazard Prevention and Control.

a. Intervention Hierarchy. The primary method of preventing and controlling exposure to WMSD hazards is through effective design (or redesign) of a job or worksite. Paragraphs 15-9b through 15-9g define intervention methods in order of priority.

b. Process Elimination. Elimination of the demanding process essentially eradicates the WMSD hazard. For example, eliminate the use of the hand-held bar code scanner for logistics/inventory management personnel by providing an automatic bar code scanner.

c. Engineering Controls. Ergonomic engineering controls redesign the equipment or worksite to fit the limitations and capabilities of workers. Equipment or worksite redesign typically offers a permanent solution. For example, provide a video display terminal workstation that can be adjusted to a wide range of anthropometric dimensions.

d. Substitution. Substituting a new work process or tool (without WMSD hazards) for a work process with identified WMSD hazards can effectively eliminate the hazard. For example, replace hand tools that require awkward wrist positions (extreme wrist flexion, extension, or deviation) with tools that allow a neutral wrist posture.

e. Work Practices. Practices that decrease worker exposure to WMSD risk factors include changing work techniques, providing personnel conditioning programs, and regularly monitoring work practices. Also included are maintenance, adjustment, and modification of equipment and tools as needed.

(1) Proper work techniques include methods that encourage -

(a) Correct posture.

(b) Use of proper body mechanics.

(c) Appropriate use and maintenance of hand and power tools.

(d) Correct use of equipment and workstations.

(e) Alternate tasks.

(2) Personnel conditioning refers to the use of a conditioning or break-in period. New and returning personnel may need gradual integration into a full workload, depending on the job and the person. Supervisors, trained ergonomics personnel, and health care personnel should identify those jobs that require a break-in period. Health care personnel should evaluate those personnel returning from a health-related absence and define the break-in period for each individual person (5 CFR 339.301).

(3) Regular monitoring of operations helps to ensure proper work practices and to confirm that the work practices do not contribute to WMSD or hazardous risk factors.

(4) Effective schedules for facility, equipment, and tool maintenance, adjustments, and modifications will reduce WMSD hazards. This includes ensuring proper working conditions, having sufficient replacement tools to facilitate maintenance, and ensuring effective housekeeping programs. Tool and equipment maintenance may also include vibration monitoring.

f. Administrative Controls. Use administrative controls to limit the duration, frequency, and severity of exposure to WMSD hazards. Examples of administrative controls include, but are not limited to:

(1) Reducing the number and speed of repetitions by reducing line or production speed or by having worker input regarding production speed (that is, using worker-based rather than machine-based production speed).

(2) Providing rest breaks to relieve fatigued muscle-tendon groups. Determine the length of the rest break by the effort required, total cycle time, and the muscle-tendon group involved.

(3) Increasing the number of personnel assigned to the task (for example, lifting in teams rather than individually).

(4) Instituting job rotation as a preventive measure, with the goal of alleviating physical fatigue and stress to a particular set of muscles and tendons. Do not use job rotation in response to symptoms of cumulative trauma. This can contribute to symptom development in all personnel involved in the rotation schedule rather than preventing problems. Trained ergonomics and health care personnel should conduct an analysis of the jobs used in the rotation schedule.

(5) Providing modified or restricted-duty assignments to allow injured muscle-tendon groups time to rest, assisting in the healing process. Make every effort to provide modified or restricted-duty assignments when physical limitations (as identified by a health care provider) allow the worker to return to work performing less than his or her normal work requirements. In regard to modified or restricted-duty assignments -

(a) A health care provider should specifically identify assignments or job tasks for the individual worker based on his or her symptoms, capabilities, and limitations.

(b) Health care providers with specific knowledge in both occupational demands and cumulative trauma injuries should cooperate with trained ergonomics personnel to develop a list of jobs with low WMSD risk.

(c) Civilian personnel representatives and supervisors, in conjunction with health care personnel, should identify modified-duty assignments and tasks and write descriptions for these assignments and tasks that conform to documented requirements. A combination of tasks from one or more jobs can be used as a modified-duty assignment. The description for each modified-duty assignment should include WMSD risk factors and muscle-tendon groups required to perform the job.

g. Personal Protective Equipment (PPE) is not necessarily recommended for controlling exposure to WMSD hazards, since little research has been conducted to support claims of its usefulness.

(1) Appliances, such as wrist rests, back belts, back braces, etc., are not considered PPE. Before purchasing such devices, discuss their effectiveness with trained ergonomics personnel. The Office of The Surgeon General does not support the blanket use of back belts as a back injury preventive measure. Antivibration gloves are an example of PPE that addresses WMSD hazards.

(2) Consider WMSD hazards when selecting PPE. PPE -

(a) Should be properly worn or used according to army and manufacturers' specifications.

(b) Should be available in a variety of sizes.

(c) Should accommodate the physical requirements of personnel and the job.

(d) Should not contribute to WMSD hazards.

15-10. Health Care Management.

a. Written Protocol. Health care personnel should develop a written protocol for the early recognition, evaluation, treatment, and follow-up of WMSDs. This chapter provides the structure and much of the content of the protocol. The protocol includes communication with supervisors and military and civilian personnel to identify worksite problems and implement recommendations. Health care personnel should tailor the protocol to their specific installation and provide it to the ergonomics subcommittee for review.

b. Early Evaluation of Patients. Early recognition and health care management of WMSDs are critical to reduce the impact of injury on both personnel and employer.

(1) Common symptoms of WMSDs can include (but are not limited to) pain, tingling, numbness, stiffness, and weakness in the neck, shoulders, arms, hands, back, and legs. Other symptoms can include headaches, visual fatigue, and increased errors.

(2) Soldiers and civilian personnel with symptoms of WMSDs should report to health care personnel for an evaluation.

(a) Active-duty soldiers should report to their primary care provider.

(b) Civilian personnel should report to occupational health with the appropriate forms: CA Form 2 for all WMSDs except back injuries which require CA Form 1 and CA Form 16 (Authorization for Examination and/or Treatment).

(3) Supervisors should ensure that soldiers with WMSD symptoms report for a medical evaluation in a timely manner. Supervisors should encourage civilian personnel to report for a medical evaluation.

(4) Supervisors may not place disincentives as an impediment to personnel reporting WMSDs.

c. Medical Evaluation. The initial medical evaluation of a patient with a possible WMSD should include a detailed medical and occupational history and a physical examination. A standardized questionnaire is a useful tool for obtaining the history. (USACHPPM TG 220). Health care personnel, within their approved scope of practice, should -

(1) Complete a medical and occupational history that includes:

(a) Military occupational specialty (MOS), job title or series, and number of years and months at that job.

(b) Prior work history.

(c) A detailed description of current job tasks and the amount of time normally spent on each task.

(d) A detailed description of symptoms to include location, character (such as burning, sharp, dull, pins and needles), severity, onset, duration, and exacerbating and relieving factors.

(e) Lost time or limited duty due to symptoms.

(f) Prior evaluation, diagnosis, and treatment of symptoms.

(g) Other existing medical conditions and history of trauma and surgery.

(h) Activities and hobbies outside of work.

(i) Current medications.

(2) Conduct a physical examination that includes, but is not limited to:

(a) Appearance (swelling, muscle atrophy, erythema, ecchymosis).

(b) Range of motion and muscle strength.

(c) Neurologic assessment (motor, sensory, reflexes).

(d) Vascular assessment (pulses, capillary refill).

(e) Evaluation for pain and tenderness.

(f) Special tests, such as median nerve percussion (Tinel's sign) and the wrist flexion test (Phalen's test) when appropriate.

(3) Perform additional testing as indicated, such as nerve conduction velocities, laboratory tests, and radiographic procedures.

d. Treatment. Health care personnel should initiate appropriate treatment and rehabilitation as defined by current standards of medical practice. In general, try conservative therapy before invasive treatment.

(1) Supervisors, CPAC, and co-workers will encourage civilian personnel with a suspected WMSD to seek evaluation and treatment from their civilian health care provider. Priorities for treatment in an Army medical treatment facility (MTF) where possible will be IAW AR 690-800, chapter 810, subchapter six. Priorities for care and authorization for treatment will be according to AR 40-3, paragraphs 2-3 and 4-20 and AR 40-5, paragraph 5-10a. Occupational health personnel will coordinate with the CPAC and Patient Administration Division when there are questions about a person's entitlement to care.

(2) Active-duty soldiers with a suspected WMSD will be seen in an Army MTF.

(3) Army Reserve Component soldiers with a suspected Army-duty WMSD will be seen at an Army MTF according to AR 40-3, paragraph 4-2.

e. Modified or Restricted Duty. Health care personnel should coordinate with trained ergonomics personnel to recommend duty assignments that will not aggravate a patient's condition.

f. Follow-up. Health care personnel should perform regular follow-up for patients being treated for WMSDs to monitor the efficacy of therapy and worksite intervention.

g. Medical Surveillance.

(1) WMSD do not require a general screening medical surveillance program. Instead, use the methods of problem identification as described in chapter three. The occupational medicine physician, occupation health nurse, and IH personnel, in cooperation with members of the ergonomics subcommittee, should -

(a) Conduct periodic, systematic worksite walk-through surveys to remain knowledgeable about operations and work practices. A minimum of once a year is suggested.

(b) Provide written documentation of the walk-through survey. Documentation should include date, area(s) visited, risk factors identified, actions taken (if any), and any needed prioritized follow-up.

(2) Special medical surveillance may be indicated for -

(a) Specific jobs where a high incidence of WMSDs has been demonstrated.

(b) Specific jobs that have been identified as high risk based on systematic active surveillance and detailed analysis as discussed in chapter three.

(3) Maintain baseline and periodic health assessment results in personnel medical records. Pay attention to any changes that could indicate a WMSD.

h. Reporting. Occupational health, safety, and health care personnel should use the following forms to document WMSDs and perform passive surveillance. These findings should be reported to the ergonomics subcommittee.

(1) Log of Federal Occupational Injuries and Illnesses or equivalent.

(2) CA Form 2 (all WMSDs except back injuries).

(3) CA Form 1, CA Form 16, and CA Form 17 (Duty Status Report) (back injuries).

(4) SF 600 (Chronological Record of Medical Care) in the medical record.

(5) DA Form 3075 (Occupational Health Daily Log).

(6) DA Form 285 and DA Form 285-AB-R for reporting military occupational illnesses according to AR 385-40, paragraph 2-8.

i. Worksite Evaluation Referrals.

(1) Health care personnel who are treating a patient with a suspected WMSD should request a worksite evaluation for the patient through the IEO and the ergonomics subcommittee. Trained ergonomics personnel, together with health care personnel, should conduct the worksite evaluation.

(2) Flow diagrams depicting the handling of traumatic injury and occupational disease and illness are available (USACHPPM TG 220).

15-11. Training.

a. The “Train the Trainer” Concept. Administer training programs in a pyramid fashion.

(1) Ergonomics experts provide training to develop trained IEOs.

(2) Trained IEOs -

(a) Then train unit and organizations ergonomics program coordinators and others at the installation level, including supervisors and workers.

(b) May also train special assistants, who can help with recognizing WMSDs. The special assistants may be representatives from each department or division who assist other department members in recognizing and reporting WMSDs.

b. Training Requirements.

(1) The IEO should have -

(a) A minimum of 40 hours of formal ergonomics training. Formal training is classroom instruction, exercises, supervised worksite assessment, and individual learning assignments.

(b) Training and experience sufficient to identify WMSDs and risk factors.

(2) Trained ergonomics program coordinators should have -

(a) A minimum of four hours of formal ergonomics training.

(b) Training and experience sufficient to identify WMSDs and risk factors.

(3) Core ergonomics subcommittee members, support and advisory ergonomics subcommittee members, and installation-level personnel providing assistance in recognizing WMSDs should have a basic eight hour ergonomic course.

c. Special Training Requirements. Personnel responsible for administering the IEP should receive appropriate special training. Training is necessary for Active Army, U.S. Army Reserve, and Army National Guard personnel and all levels of civilian personnel to enable them to understand and recognize potential WMSDs and actively participate in the ergonomics effort (USACHPPM TG 220).

(1) Personnel requiring training.

(a) All DA personnel who are potentially exposed to WMSDs.

(b) Supervisors.

(c) Managers.

(d) Engineers and maintenance personnel.

(e) Installation safety and occupational health personnel.

(2) Personnel who may conduct training.

(a) IEO or trained safety specialist.

(b) Suitable health care personnel to conduct specific portions of training, such as those related to health risks.

(3) Curriculum considerations. Trained ergonomics personnel should -

(a) Present training at a level appropriate to ensure audience comprehension.

(b) Include in the training curriculum an overview of -

1 The potential risk of WMSDs.

2 The possible causes and symptoms.

3 How to recognize and report symptoms.

4 The means of prevention.

5 The sources of treatment.

(c) Include methods for evaluating the effectiveness of the ergonomics effort.

15-12. Program Evaluation.

a. Evaluation Requirements. Both external and internal sources should evaluate each ergonomic program to assess its effectiveness.

b. External Evaluations.

(1) The TRADOC Safety Office will inspect the IEP during the annual safety inspection of the installation.

(2) Ergonomics program personnel at United States Army Center for Health Promotion and Preventive Medicine (USACHPPM), on request from the installation, may -

(a) Assist with ergonomics program development.

(b) Evaluate elements of the ergonomics program.

(c) Conduct installation ergonomics surveys.

(3) The OSHA may cite ergonomic hazards during any of its inspection of this installation.

c. Internal Evaluations. The IEO ensures evaluation of the ergonomics effort regarding program participation and effectiveness. Methods of measuring both of these elements are listed below (see USACHPPM TG 220 for detailed information and examples of metrics for program evaluation).

(1) Program participation.

(a) Number of requests for ergonomic assistance by management occurring during a specified period.

(b) Number of personnel suggestions related to ergonomics during a specified period.

(c) Number of educational programs in ergonomics offered or number of personnel attending educational programs.

(2) Program effectiveness.

(a) Number of general or systematic identifications of potential WMSDs.

(b) Number of detailed analyses conducted.

(c) Number of high priority listings relating to ergonomics.

(d) Changes in the incidence and severity rates (see glossary) of ergonomically related FECA claims or dollar amount of new FECA claims within a particular period.

(e) Changes in the incidence and severity rates of ergonomically related illness or injury reports filed for military and civilian personnel.

(f) Changes in the incidence and severity rates of ergonomically related illness or injury by department or unit.

(g) Changes in the incidence and severity rates of lost- or restricted-duty time due to ergonomically related illness or injury.

(h) Changes in the number of new job reassignments due to ergonomically related illness or injury.

(i) Changes in productivity or production costs that can be attributed to ergonomic interventions.

Note: In some cases, there may be an increase in illness or injury reporting at the start of an ergonomics program due to increased personnel and supervisor awareness. This reporting rate will decrease as a well-managed, effective ergonomics program is integrated into the workplace.

(3) An annual review of the ergonomics program will be conducted as part of the safety portion of the OIP.

d. Regular Evaluation and Review.

(1) The IEO and the ergonomics subcommittee -

(a) Conduct at least a semiannual program evaluation and review.

(b) Present the results of this program evaluation and review to the installation OSHAC .

(c) Communicate the results of the program evaluation and review to top management and all workplace personnel.

(2) The program evaluation assesses the implementation, progress, and effectiveness of the installation ergonomics plan. It should include:

(a) A progress summary or program update.

(b) A summary of results of external evaluations as defined in paragraph and program participation and effectiveness measures.

(c) Plans, goals, and accomplishments for the program as a whole and by the critical program elements.

(d) Identification of trends, deficiencies, and corrective actions needed.

(e) New or revised program goals, priorities, and time lines.

(3) Use the following information to develop the evaluation and review.

(a) Analysis of trends in injury or illness rates according to -

1 Health care facility sign-in logs.

2 Log of Federal Occupational Injuries and Illnesses or an equivalent log.

3 Individual personnel medical records.

4 The Defense Occupational Health Readiness System (for example, the HHIM).

(b) Review of results of installation evaluations.

(c) Before and after surveys or evaluations of worksite improvements.

(d) Observation of work practices to determine the effect of training and education.

(e) Personnel surveys or interviews conducted by department, job title, or work area to monitor trends.

Chapter 16
BLOODBORNE PATHOGENS PROGRAM

16-1. Purpose. This section establishes FLW's bloodborne pathogens program. This document prescribes policy guidance necessary to ensure that the minimal acceptable requirements of the DA and OSHA are being applied. Due to the nature of the exposure GLWACH and the United States Army Dental Activity Command (DENTAC) will have their own exposure plans separate from this chapter.

16-2. General. Each organization on FLW must determine if any personnel of that organization during the normal course of their job may be exposed to human body fluids that may contain bloodborne pathogens or diseases that are carried by body fluid. These personnel who may become exposed are at risk for contracting the disease in the fluid.

a. Each organization having service members or civilian employees with occupational exposure must establish a written exposure control plan designed to eliminate or minimize employee exposure.

b. The exposure control plan shall contain at least the following elements:

(1) The exposure determination. A list of personnel and positions who may be exposed through their on the job tasks to body fluids. This list often includes fire fighters, MP, security guards, life guards, combat life savers, etc.

(2) The schedule and method of implementation for methods of compliance, hepatitis B vaccination and post-exposure evaluation and follow-up, communication of hazards to service members and employees, and record keeping.

c. A copy of the exposure control plan must be accessible to service members and employees who may be exposed.

d. The exposure control plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

16-3. Exposure Determination.

a. Each commander or director will develop a list of all job classifications in which all employees in those job classifications have occupational exposure.

b. A second list will be developed of jobs in which some employees have occupational exposure.

c. A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications.

d. This exposure determination shall be made without regard to the use of PPE.

16-4. Control Measures.

a. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

b. PPE.

(1) When there is occupational exposure, the employer shall provide appropriate PPE such as, but not limited to, gloves, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices.

(2) PPE will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes

under normal conditions of use and for the duration of time which the protective equipment will be used.

(3) The service member or the employee must use appropriate PPE unless the service member or the employee temporarily and briefly declined to use PPE, under rare and extraordinary circumstances, it was the service member or employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(4) The appropriate PPE in the appropriate sizes must be readily accessible at the worksite or issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(5) Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures.

(6) Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

(7) Disposable (single use) gloves shall not be washed or decontaminated for re-use.

c. Supervisors shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other PPE.

d. Supervisors shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

e. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

16-5. Training.

a. Must be conducted at the time of initial assignment to tasks where occupational exposure to bloodborne pathogenes may take place and at least annually thereafter.

b. Additional training must be conducted when changes, modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

c. Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

d. The training program shall contain at a minimum the following elements:

(1) A general explanation of the epidemiology and symptoms of bloodborne diseases.

(2) An explanation of the modes of transmission of bloodborne pathogens.

(3) An explanation of the installation exposure control plan (this chapter) and the means by which the employee can obtain a copy of the written plan.

(4) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.

(5) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and PPE.

(6) Information on the types, proper use, location, removal, handling, decontamination and disposal of PPE.

(7) An explanation of the basis for selection of PPE.

(8) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, and the benefits of being vaccinated.

(9) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.

(10) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.

(11) Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.

(12) An opportunity for interactive questions and answers with the person conducting the training session.

e. The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

16-6. Hepatitis B Vaccination.

a. The hepatitis B vaccine and vaccination series shall be made available to all employees who have occupational exposure, or as part of a post-exposure evaluation and follow-up to all employees who have had an exposure incident and have received the training on the hazards and control measures and within ten working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

b. If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the supervisor shall make available hepatitis B vaccination at that time.

c. The supervisor shall assure that employees who decline to accept the hepatitis B vaccination offered by the installation sign a statement declination.

16-7. Post-Exposure Evaluation and Follow-Up. Following a report of an exposure incident the exposed service member or employee will be provided a confidential medical evaluation and follow-up, including at least the following elements:

a. Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred.

b. Identification and documentation of the source individual, unless the supervisor can establish that identification is infeasible or prohibited by state or local law;

c. The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine hepatitis B virus (HBV) and human immunodeficiency virus (HIV) infectivity. If consent is not obtained, the supervisor shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented. When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

d. Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

e. The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

f. If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

g. Post-exposure follow-up will include counseling and an evaluation of reported illnesses.

i. The healthcare professional evaluating an employee after an exposure incident shall be provided the following information:

(1) A copy of this regulation.

(2) A description of the exposed employee's duties as they relate to the exposure incident.

(3) Documentation of the route(s) of exposure and circumstances under which exposure occurred.

(4) Results of the source individual's blood testing, if available.

(5) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

j. The healthcare professional's written opinion shall be provided to the unit or organization of the service member and a copy will be provided to the service member or employee within 15 days of the completion of the evaluation. The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

(1) That the employee has been informed of the results of the evaluation.

(2) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

(3) All other findings or diagnoses shall remain confidential and shall not be included in the written report.

16-8. Responsibilities.

a. Commanders and Directors will -

(1) Conduct an assessment to determine if occupational exposure may occur to personnel within the organization.

(2) If exposure may occur, develop an exposure plan for those personnel who may be exposed.

(3) Ensure personnel who may be exposed receive initial and annual training on bloodborne pathogens.

(4) Ensure regular inspections are conducted to determine the continued effectiveness of the program.

(6) Ensure personnel under their command are provided both environmental and PPE necessary.

(7) Ensure personnel know their rights for taking or declining the hepatitis B vaccination.

(8) Maintain training records to document completion of training.

(9) Refer personnel who may have been exposed to body fluids to occupational health nurse located at GLWACH for screening. Record of referrals for each identified individual shall be maintained separate from medical records for administrative control.

b. The MSO will -

(1) Assist commanders and directors in identifying specific tasks that may allow for exposure.

(2) Review unit and organizational control plans for completeness.

(3) Review the accuracy and completeness of this program during all inspections and surveys.

c. The GLWACH, Occupational Health Office will -

(1) Assist commanders in identification of tasks that may cause exposure.

(2) Review unit or organizational control plans for accuracy and completeness.

(3) Provide training to personnel who have the potential to be exposed.

(4) Assist commanders and directors in determining which items of PCE are appropriate for the hazard.

(5) Arrange for proper tests and evaluations for a person who is believed to have been exposed to body fluids.

(6) Provide follow-up for personnel who have been exposed.

(7) Arrange for healthcare provider opinion of possible exposure.

(8) Maintain medical records and record all exposures.

d. Unit and organization additional duty safety officers/NCOs and civilian supervisors will -

(1) Coordinate with GLWACH, Occupational Health Office for identification of tasks, operations, and occupations where body fluids may be contacted.

(2) Coordinate with GLWACH, Occupational Health Office for assistance and advice in the selection of proper PCE to protect personnel.

(3) Coordinate with the unit commander or organization director to ensure a bloodborne pathogens program (if needed) is in conformance with applicable regulations and directives.

(4) Conduct random inspections and surveys to determine the continued effectiveness of the bloodborne pathogens

program. The bloodborne pathogens program shall be a point of interest in the unit's OIP.

e. All military and civilian supervisors of personnel assigned to work in potential bloodborne pathogen hazardous areas or occupations will -

(1) Ensure that potential exposure is included in civilian job descriptions.

(2) Ensure that potentially exposed employees are properly trained and properly use PCE.

f. All military and civilian personnel assigned to work in bloodborne pathogen hazardous areas or occupations will -

(1) Keep PCE clean, properly fitted, and in serviceable condition.

(2) Adhere to SOPs.

(3) Warn others of known hazards or failure to observe safety rules.

16-9. Recordkeeping.

a. The employer shall establish and maintain an accurate record for each employee with occupational exposure, IAW 29 CFR 1910.1020.

b. This record shall include:

(1) The name and social security number of the employee.

(2) A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination.

(3) A copy of all results of examinations, medical testing, and follow-up procedures.

(4) The employer's copy of the healthcare professional's written opinion.

(5) A copy of the information provided to the healthcare professional.

c. Confidentiality. The employer shall ensure that employee medical records are -

(1) Kept confidential.

(2) Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(3) Maintained for at least the duration of the employee’s employment plus 30 years IAW 29 CFR 1910.1020.

d. Training records shall include the following information:

(1) The dates of the training sessions.

(2) The contents or a summary of the training sessions.

(3) The names and qualifications of persons conducting the training.

(4) The names and job titles of all persons attending the training sessions.

e. Training records shall be maintained for three years from the date on which the training occurred.

Chapter 17
VISION PROTECTION PROGRAM

17-1. Purpose. This section establishes the FLW's Occupational Vision Protection Program. This document prescribes policy guidance necessary to ensure that the minimal acceptable requirements of the DA and OSHA are being applied. Additional guidance can be found in 7-4a of this regulation and appendix D.

17-2. Responsibilities.

a. Commanders and directors will -

(1) Establish a vision protection program when eye hazards have been identified during a safety and health inspection.

(2) Ensure eye hazards and hazardous areas are properly identified with placards or signs.

(3) Approve written SOPs governing the preservation of eyesight.

(4) Cause regular inspections to determine the continued effectiveness of the program.

(5) Ensure instruction and training point out the benefits of the program and stimulate cooperation of all concerned.

(6) Ensure personnel under their command are provided both environmental and PPE necessary for eye safety.

(7) Prevent access to eye hazard areas to anyone not equipped with eye protection.

(8) Refer personnel to be assigned duties in an eye hazardous area or occupation to the occupational health nurse located at GLWACH for vision screening. Record of referrals for each identified individual shall be maintained separate from medical records for administrative control.

b. The MSO will -

(1) Identify in writing the specific areas of a unit or organization that require eye protection. See appendix D of this regulation for initial information.

(2) Inspect for the proper identification and protection from eye hazards during all inspections and surveys.

(3) Provide assistance to units and organization on determining the proper eye protection for a particular hazard.

c. The IH office of GLWACH will -

(1) Identify in writing the specific areas of a unit or organization that require eye protection. See appendix D of this regulation for initial information.

(2) Inspect for the proper identification and protection from eye hazards during all inspections and surveys.

(3) Provide assistance to units and organization on determining the proper eye protection for a particular hazard.

d. Unit and organization additional duty safety officers/NCOs and supervisors will -

(1) Coordinate with the IH from GLWACH or the MSO for identification of areas, operations, and occupations where eye protection is required and for assistance and advice in the

selection of proper eye protection devices to protect employee vision.

(2) Coordinate with the unit commander or organization director to ensure a vision protection program is in conformance with applicable regulations and directives.

(3) Conduct random inspections and surveys to determine the continued effectiveness of the vision protection program. The vision protection provided shall be a point of interest in the unit's OIP.

e. All military and civilian personnel assigned to work in eye hazardous areas or occupations will -

(1) Submit to vision screening and examination for evaluating whether the individual meets the visual standards of the work.

(2) Keep protective eye wear clean, properly fitted, and in serviceable condition.

(3) Adhere to SOPs.

(4) Warn others of known hazards or failure to observe safety rules.

17-3. Hazardous Areas. Any material that could cause damage upon entering the eyes should be considered when surveying for the vision protection program. Some processes are automatically included such as:

a. Laser devices, i.e. night vision devices, range finders.

b. Chemical substance handling.

c. Sandblasting, grinding, power mowers, weed eaters.

d. Indoor racket sports.

e. Banding operations, brake repair/installation.

f. Arc welding.

g. Striking with a hammer.

Chapter 18
HEARING CONSERVATION PROGRAM

18-1. Purpose. This section establishes the FLW Hearing Conservation Program. DA Pam 40-501 and this chapter prescribe policy guidance necessary to ensure that the minimal acceptable requirements of DA and OSHA are being applied. For additional information and guidance refer to 7-4d and appendix D of this regulation.

18-2. Responsibilities.

a. Commanders will -

(1) Establish a hearing conservation program, if the requirement has been identified during a safety and health inspection.

(2) Approve written SOPs governing hearing protection.

(3) Cause regular inspections to determine program effectiveness.

(4) Ensure instruction and training stress the benefits of the program, the hazards and long-term effects of hearing loss, and stimulate the cooperation of all concerned.

(5) Ensure personnel under their command are provided both environmental and personal measures necessary to preclude hearing loss.

(6) Prevent access to high noise hazard areas to anyone not equipped with the proper level of hearing protection.

(7) Refer personnel to be assigned duties in a high noise hazard area or occupation to the occupational health nurse located at GLWACH for audiometric testing. Records of referrals for each identified individual shall be maintained separate from medical records for administrative control.

(8) Ensure the unit training program includes health education material and annual briefings on the consequences of exposure to high noise levels.

(9) Ensure supervisors strictly enforce the use of hearing protection devices by all personnel working in high noise hazard areas. Supervisors must provide official visitors with hearing protection devices prior to authorizing entry to noise hazard areas.

b. The MSO will -

(1) Identify in writing the specific areas of a unit or organization that require hearing protection. See appendix D of this regulation for initial information.

(2) Inspect for the proper identification and protection from noise hazards during all inspections and surveys.

(3) Provide assistance to units and organizations on determining the proper hearing protection for a particular hazard.

c. The IH Office of GLWACH will -

(1) Identify in writing the specific areas of a unit or organization that require hearing protection. See appendix D of this regulation for initial information.

(2) Inspect for the proper identification and protection from noise hazards during all inspections and surveys.

(3) Provide assistance to units and organizations on determining the proper hearing protection for a particular hazard.

(4) Identify high noise hazard areas and post them IAW DA Pam 40-501, Hearing Conservation.

(5) Identify individuals assigned to work in those areas.

(6) Identify individuals by MOS for inclusion in the unit audiometric monitoring plan.

(7) Examine individual records for a reference audiogram, DD Form 2215. If none is available, immediately refer the person to the occupational health nurse from GLWACH for a baseline survey.

(8) Recommend retest occurs as follows:

(a) If hearing threshold shifts are detected, individuals will be re-tested after a period of 24 hours of no exposure, IAW DA Pam 40-501.

(b) If hearing threshold shifts are not detected, the individual will be re-tested one year later.

d. Unit and organization additional duty safety officers/ NCOs and supervisors will -

(1) Coordinate with unit commanders to ensure a hearing conservation program is established within applicable regulatory provisions.

(2) Assist their units in coordination with the IH from GLWACH or the MSO for identification and evaluation of areas of operations and occupations where hearing protection is or may be required, and selection of proper hearing protection devices to protect employees.

(3) Conduct regular inspections and surveys to determine the effectiveness of the hearing conservation program. This program shall be a point of interest during the annual OIP.

e. Military and Civilian Personnel will -

(1) Submit to baseline audiometric screening and examination to determine whether they meet the standards to perform work in noise hazardous areas.

(2) Maintain personal protective hearing devices in a clean, serviceable condition.

(3) Adhere to SOPs.

(4) Warn others of known hazards or failure to observe safety rules.

18-3. Essential Program Elements. The essential provisions of an effective hearing conservation program consist of hazard identification; protection through engineering controls or use of protective devices; health education, supervision, and enforcement of established rules; and monitoring both the workplace and personnel.

18-4. Hazardous Areas. All identified areas will be posted and the wearing of ear protection will be mandatory where the hazard cannot be reduced through engineering controls.

a. Once identified, a decision is made by a safety and occupational health specialist and manager whether to declare the entire building, a section of the building, or areas around individual items of equipment as being hazardous, i.e., 35 feet (11 meters) around an operating generator, then dedicated enforcement becomes essential.

b. Color coded signs and decals must be conspicuously posted to identify noise hazard areas and equipment. These signs and decals alert the worker and visitor that a noise hazard exists and that proper precautions must be taken. Caution signs must be positioned at entrances to, or on the periphery of, noise hazardous areas where they are visible to personnel entering or working.

Chapter 19
FOOT PROTECTION PROGRAM

19-1. Purpose. This section establishes FLW's Occupational Foot Protection Program. This document prescribes policy guidance necessary to ensure that the minimal acceptable requirements of the DA and OSHA are being applied. Additional guidance can be found in 7-4b of this regulation and appendix D.

19-2. Responsibilities.

a. Commanders and Directors will -

(1) Establish a foot protection program when foot hazards have been identified during a safety and health inspection.

(2) Ensure foot hazards and hazardous areas are properly identified with placards or signs.

(3) Approve written SOPs governing the prevention of foot injuries.

(4) Cause regular inspections to determine the continued effectiveness of the program.

(5) Ensure instruction and training point out the benefits of the program and stimulate cooperation of all concerned.

(6) Ensure personnel under their command are provided both environmental and PPE necessary for foot safety.

(7) Prevent access to foot hazard areas to anyone not equipped with foot protection.

b. The MSO will -

(1) Identify in writing the specific areas of a unit or organization that require foot protection. See appendix D of this regulation for initial information.

(2) Inspect for the proper identification and protection from foot hazards during all inspections and surveys.

(3) Provide assistance to units and organization on determining the proper foot protection for a particular hazard.

c. The IH Office of GLWACH and the MSO will provide assistance to units and organization on determining the proper foot protection for a particular hazard.

(1) Identify in writing the specific areas of a unit or organization that require foot protection. See appendix D of this regulation for initial information.

(2) Inspect for the proper identification and protection from foot hazards during all inspections and surveys.

(3) Provide assistance to units and organization on determining the proper foot protection for a particular hazard.

d. Unit and organization additional duty safety officers/NCOs and supervisors will -

(1) Coordinate with a safety specialist from the MSO for identification of areas, operations, and occupations where foot protection is required.

(2) Coordinate with a safety specialist from the MSO for assistance and advice in the selection of proper foot protection devices to protect employees feet.

(3) Coordinate with the unit commander or organization director to ensure a foot protection program is in conformance with applicable regulations and directives.

(4) Conduct random inspections and surveys to determine the continued effectiveness of the foot protection program. The foot protection provided shall be a point of interest in the unit's OIP.

e. All military and civilian personnel assigned to work in foot hazardous areas or occupations will -

(2) Keep protective foot wear clean, properly fitted, and in serviceable condition.

(3) Adhere to SOPs.

(4) Warn others of known hazards or failure to observe safety rules.

19-3. Hazardous Areas. Any area that has material or equipment that can cause damage upon falling on or rolling over the foot

should be considered when surveying for the foot protection program. Some processes are automatically included such as:

a. Construction sites.

b. Warehousing.

c. Garages and mechanical repairs.

d. Arc welding.

Appendix A
REFERENCES AND FORMS

Section I. Required References.

a. AR 11-34 (The Army Respiratory Protection Program). Cited in paras 10-1a, 13-2i(1), 13-2i(2)(c), 13-3c, 13-3d(2)(e) and 13-3e(4)(b).

b. AR 40-3 (Medical, Dental, and Veterinary Care). Cited in paras 15-10d(1) and 15-10d(3).

c. AR 40-5 (Preventive Medicine). Cited in paras 10-1a, 13-3b(2) and 15-10d(1).

d. AR 50-6 (Nuclear and Chemical Weapons and Material, Chemical Surety). Cited in paras 13-2a, 13-2k and 13-3b(1).

e. AR 385-10 (Army Safety Program). Cited in paras 1-5e(1), 1-5i(2), 1-5j, and 7-1a.

f. AR 385-40 (Accident Reporting and Records). Cited in paras 1-5b(5), 1-5j, 2-1a, 2-1c, 2-2c, 9-3a, 9-5d, 9-7b, 9-7f, 9-8i(5), 9-9b and 15-10h(6).

g. AR 385-55 (Prevention of Motor Vehicle Accidents). Cited in paras 5-1f and 5-1v.

h. AR 385-61 (The Army Chemical Agents Safety Program). Cited in paras 13-2a, 13-2d(4), 13-2i(1), 13-2j(9), 13-2k and 13-3c.

i. AR 385-63 (Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat). Cited in para 6-1a.

j. AR 672-72 (Army Accident Prevention Awards Program). Cited in para 14-10.

k. AR 690-800 (Insurance and Annuities). Cited in para 15-10d(1).

l. DA Pam 40-8 (Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Nerve Agents GA, GB, GD and VX). Cited in paras 13-2f(5) and 13-3b(3)(b).

m. DA Pam 40-501 (Hearing Conservation Program). Cited in paras 18-1, 18-2b(4), 18-2b(8)(a), 18-2c(4) and 18-2c(8)(a).

n. DA Pam 50-6 (Chemical Accident or Incident Response and Assistance (CAIRA) Operations). Cited in para 13-2a.

o. DA PAM 385-61 (Toxic Chemical Agent Safety Standards). Cited in paras 13-2a, 13-2e(1), 13-2e(4)(a), 13-2e(4)(b), 13-2f(1), 13-2f(3), 13-2f(4), 13-2g(1), 13-2g(2), 13-2h(3), 13-2j(1), 13-2j(5), 13-2j(8), 13-2j(11), 13-2k, 13-3b(3)(b), 13-3b(5), 13-3c and 13-3e(2)(a).

p. TB MED 502/DLAM 100.2 (Occupational and Environmental Health Respiration Protection Program). Cited in paras 10-3b(2), 10-3b(6), 13-2f(4) and 13-3b(2).

q. TB Med 509 (Spirometry in Occupational Health Surviellance). Cited in para 13-3b(2).

r. TM 9-4540-202-12&P (Operator's and Organizational Maintenance Manual for Heater, Immersion Liquid Fuel Fired 35,000 BTU Output for Corrugated Cans). Cited in para 6-3b(8).

s. TM 10-4500-200-13 (Operator's, Organizational and Direct Support Maintenance Manual for Space Heaters). Cited in para 6-3a(2).

t. TC 3-41 (Protection Assessment Test System (PATS)). Cited in para 13-3b(3)(a).

u. Uniform Code of Military Justice (UCMJ). Cited in para 7-2c.

v. DOD 6055.9-STD (DOD Ammunition and Explosives Safety Standards). Cited in para 13-2d(4).

w. FLW Reg 190-5 (Fort Leonard Wood Vehicle Code). Cited in para 5-3a.

x. FLW Reg 210-14 (Range and Training Area Regulation). Cited in paras 6-1a and 9-4a(2).

y. FLW Reg 385-3 (Hazard Communication (HAZCOM) Standard Program). Cited in para 13-2m.

z. FLW Reg 385-5 (Risk Management). Cited in paras 5-1a, 8-3j(1), 12-2a(1) and 13-2h(2).

aa. FLW Reg 690-24 (Discipline). Cited in para 7-2c.

bb. FLW CPR 690-33 (Injury Compensation). Cited in para 2-3.

cc. FLW Pam 385-1 (Tornado Safety Rules). Cited in para B-3f.

dd. 5 CFR 339.301 (Authority to Require an Examination). Cited in para 15-9e(2).

ee. 29 CFR 1910 (OSHA Standards). Cited in paras 10-1a, 16-9a, 16-9c(3) and B-3n.

ff. MIL-STD 882 (System Safety Program Requirements). Cited in para 8-3e(9).

gg. ANSI Z88.2 (Practices for Respiratory Protection). Cited in para 10-1a.

hh. NFPA 1404. Cited in para 10-2c.

ii. CDTF SOP. Cited in para 13-3b(2).

jj. TRADOC Reg 385-1 (Safety Regulations for Toxic Chemical Agents GB and VX). Cited in para 13-2a and 13-2k.

kk. USACHPPM TG 220 (Draft) (Ergonomics in Action). Cited in paras 15-4f(4)(c), 15-8a(2)(a)1, 15-8a(2)(a)2, 15-8c(2)(b), 15-8c(2)(c), 15-10c, 15-10i(2), 15-11c, 15-12b(2) and 15-12c. (Available from U.S. Army Center for Health Promotion and Preventive Medicine, ATTN: MCHB-CS-IID, 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5422.)

Section II. Related References

a. Title 29, CFR (Department of Labor), part 1910 (Labor), part 1926 (Construction Industry) and part 1960 (Federal Employees).

c. EM 385-1-1 (Safety and Health Requirements).

g. AR 385-16 (System Safety Engineering and Management).

h. AR 385-62 (Regulations for Firing Guided Missiles and Heavy Rockets for Training, Target Practice and Combat).

i. AR 385-64 (US Army Explosives Safety Program).

j. AR 385-95 (Army Aviation Accident Prevention).

k. AR 600-55 (The Army Driver and Operator Standardization Program (Selection, Training, Testing and Licensing).

l. AR 700-141 (Hazardous Material Information System).

m. DA PAM 385-1 (Small Unit Safety Officer/NCO Guide).

o. DA PAM 383-5 (Fundamentals of Safety In Army Sports and Recreation).

p. DA PAM 385-40 (Army Accident Investigation and Reporting).

q. FM 21-305 (Manual for the Wheeled Vehicle Driver).

r. TC 21-306 (Tracked Combat Vehicle Driver Training).

s. TB 9-639 (Passenger Carrying Capacity of Tactical and Administrative Vehicles Commonly Used to Transport Personnel).

t. FLW Reg 58-1 (Management of Nontactical Vehicles).

v. AR 40-10 (Health Hazard Assessment Program in Support of the Army Materiel Acquisition Decision Process).

w. AR 602-2 (Manpower and Personnel Integration (MANPRINT) in the System Acquisition Process).

x. DODI 6055.1 (Draft) (DOD Safety and Occupational Health Program).

y. DA PAM 40-503 (Industrial Hygiene Program).

z. ANSI Z-365 (Draft) (Control of Work-Related Cumulative Trauma Disorders, Part 1: Upper Extremities). National Safety Council, Itasca, IL. (Available at cost from NSC, P.O. Box 558, Itasca, IL 60143-0429.)

Section III. Prescribed Form.

a. FLW Form 291-R, Telephonic Accident Report. Prescribed in para 2-1a.

b. FLW Form 385-R, Record of Minor Injury. Prescribed in para 2-1d.

c. FLW Form 944-R, Unit Safety Inspection Record. Prescribed in para 3-2b.

Section IV. Referenced Forms.

a. DA Form 285, U.S. Army Accident Report.

b. DA Form 285-AB-R, U.S. Army Abbreviated Ground Accident Report (AGAR).

c. DA Form 348, Equipment Operator's Qualification Record.

d. DA Form 1118, Certificate of Merit for Safety.

e. DA Form 1119, Certificate of Achievement in Safety.

f. DA Form 1119-1, Certificate of Achievement in Safety.

g. DA Form 3075, Occupational Health Daily Log.

h. DA Form 3076, Army Occupational Health Report.

i. DA Form 4753, Notice No. of Unsafe of Unhealthful Working Condition.

j. DA Form 4756, Installation Hazard Abatement Plan.

k. DA Form 5758, Army Accident Prevention Award of Honor in Safety.

l. DA Form 5775, Army Accident Prevention Award of Accomplishment in Safety.

m. DA Form 5776, Commander's Special Safety Award.

n. DA Form 5777, U.S. Army Safety Guardian Award.

o. DD Form 2215, Reference Audiogram.

p. DD Form 2272, DOD Occupational Safety and Health Protection Program (Poster).

q. CA Form 1, Federal Employees Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation.

r. CA Form 2, Federal Employees' Notice of Occupational Disease and Claim for Compensation.

s. CA Form 16, Authorization for Examination And/Or Treatment.

t. CA Form 17, Duty Status Report.

u. SF 600, Chronological Record of Medical Care.

v. OF Form 346, US Government Motor Vehicle Operator's Identification Card.

w. MED Form 206, Health Hazard Information. Module Held Survey Form.

x. MED Form 292-R, Respirator Fitting Card.

y. MED Form 734, Preventive Medicine Ergonomics Checklist.

z. TRADOC Form 854-R, Range Safety Evaluation Checklist.

aa. FLW Form 933, Safety Program Checklist.

Appendix B
INSTALLATION SAFETY RULES

B-1. General. Adequate instructions and enforcement of applicable safety rules are the inherent responsibility of commanders, directors, chiefs of activities, and subordinate supervisors.

B-2. Commanders/directors will ensure that newly assigned personnel read or receive instructions on the safety rules outlined in this appendix.

B-3. Requirements and Prohibitions.

a. Pedestrian safety. Maximum utilizations will be made of sidewalks and troop trails. Walking is permitted only on the left

side of the street, road, or highway (facing oncoming traffic) if there is no sidewalk. Avoid unnecessary walking or running on rough terrain or within poorly lighted areas.

b. Riding in trucks. Trucks are to be mounted or dismounted at the rear of the bed. Passengers will be seated while the vehicle is in motion and will not extend any part of their bodies beyond the body of the vehicle. Passengers will not jump from vehicles but will dismount in a safe and orderly manner. Individuals will not ride on any trailer not specifically designated as a personnel carrier. When a dump truck is used to transport personnel, positive locking devices will be used to prevent inadvertent actuation of hoist controls. All loads on vehicles will be secured to prevent the load from shifting and possible injury to personnel.

c. Mess activities. Supervisors will instruct all duty personnel concerning methods to avoid accidents from slippery surfaces; improper firing of equipment; cuts from glass, cans, or other sharp objects; handling of hot liquids; and skin injuries from improper use of detergents. Only cooks or properly instructed cadre are authorized to light or attend immersion heaters. Blades will not be removed from meat slicing machines by unit personnel. The piping from hot water temperature relief valves will not be extended to the exterior of the building. Lights over food preparation or serving areas will be protected by vapor proof globes.

d. Prohibited places.

(1) All personnel will refrain from entering work areas, work sites, rooms, or buildings if their presence is not required or permitted.

(2) No person will be present on fire platforms or fire ladders except in case of a fire which makes inside stairways inaccessible or when performing authorized maintenance on these structures.

(3) No person will be permitted on building overhangs or ledges unless directed by proper authority and then only if properly secures by adequate safety ropes.

e. Safety of military personnel on pass and leave.

(1) Hitchhiking is prohibited. All personnel will be warned of the danger and hazards of riding with reckless drivers and the possible assault, robbery, and death resulting from accepting rides with strangers.

(2) All personnel will be informed of the following: that the POV is the leading factor in the installation's injury and death experience; that the leading causes of vehicle accidents are - excessive speed for driving conditions, driver fatigue, and drinking of alcoholic beverages; and that these accidents are frequently compounded by attempting to go too far in the time available. Failure to use seat belts leads to increased severity of injury in case of accident.

(3) Personnel on non-duty status will be warned to avoid contact with unknown persons in public places, to avoid walking alone on dark streets and areas, to stay sober, and to avoid altercations.

(4) Personnel will be frequently reminded during the swimming season that swimming in areas where qualified life guards are not present is prohibited. They will be reminded that the number two cause of fatalities among FLW personnel is drowning and over 90 percent of the drowning occur off post in the Lake of the Ozarks, and the Gasconade and Roubideaux Rivers.

f. Tornado safety. The tornado safety rules contained in FLW Pam 385-1 should be observed for maximum protection against tornadoes.

g. Electrical precautions.

(1) Cranes, shovels, and other equipment will not be operated within ten feet of any high voltage power lines; nor will any antennae, pipe, or other conductor be positioned where they may come in contact with such lines.

(2) Fans normally will be operated at a minimum height of seven feet above the floor to preclude injury. If operation at a lower level is required, fans will be equipped with auxiliary guards adequate to prevent contact of blades with persons or clothing.

h. Solvents and flammable liquids.

(1) The use of gasoline and other petroleum derivatives, except nonflammable liquids (e.g., Stoddard solution), to clean parts of the body, clothing, brushes, equipment and floors, or for degreasing or thinning paint is prohibited. All cleaning tanks will have a water supply as outlined by OSHA within 48 inches.

(2) The use of grease, gasoline, kerosene, fuel oil, or other flammable liquids to accelerate fires in coal or wood-fired equipment is prohibited.

i. Hand tools. Hand tools will be used only for the purpose and range limits for which they were designed and only then when in good condition (i.e., free of mushroomed parts, splintered or cracked handles, grease, dirt, or improperly secured parts). They will be transported and stored in such a manner as to prevent injury to personnel and/or damage to equipment. Pick and mattock handles will not protrude more than 3/8 inch beyond the top of these tools.

j. Ladders.

(1) Ladders of all types will be used only when free of defective conditions which might induce falls.

(2) Will be properly positioned and secured before use.

(3) Must be of proper length and type for the purpose of use.

(4) Portable wooden ladders will not be painted but may be covered by a transparent protective coating such as linseed oil or shellac.

(5) Must be properly secured to prevent use when unserviceable.

(6) Insecure expedients will not be used in lieu of ladders and scaffolds.

k. Clothing and jewelry.

(1) Clothing, headdress, and footwear appropriate to the work being performed and the conditions of work will be worn.

(2) Proper gloves will be worn in the handling of sharp, rough, hot, or corrosive materials.

(3) The wearing of any jewelry, including rings, and wrist watches, is prohibited when it may cause injury by entanglement or contact with electrical circuits. Finger rings may catch on tailgates and other parts of trucks while dismounting. To reduce this type injury, the wearing of rings by soldiers undergoing basic training, advanced individual training, and field training exercises requiring movement of troops by truck will be discouraged. The "no jewelry" rule will apply to personnel working with machinery.

(4) Loose or ragged clothing will not be worn around moving parts of machines.

(5) PCE will be furnished and worn in all work sites where required.

l. Machinery and other equipment.

(1) No individual will operate any machinery or other equipment unless properly trained, assigned by proper authority, and using adequate PCE.

(2) Machines will have guards installed IAW OSHA standards.

(3) Machines will not be operated when any inspection, adjustment, lubrication, or repair presents hazards.

(4) Machines or vehicles will not be elevated without adequate support to ensure stability.

(5) Abrasive wheels.

(a) Abrasive wheels will be operated only at speeds prescribed by the manufacturer, when properly mounted, with the perimeter guards and tool rests secured in the proper positions and with the user protected by safety goggles.

(b) Grinding on sides of wheels will he done only on wheels specifically designed for side grinding.

(c) Wheels containing cracks or other flaws will be immediately marked and removed from service.

(d) Unmounted wheels will he properly stored to protect them from damage.

(6) Portable electrical generators and welding machines will be adequately grounded before being operated.

m. Compressed air and other gases.

(1) Compressed air and other gases will not be directed at the person or clothing of any person. Working pressures (pressure actually being released at nozzle) will not exceed 30 pounds per square inch (psi) when used for cleaning purposes.

(2) When used for painting or cleaning, operators will use adequate eye and respiratory protection to prevent injuries or unfavorable health conditions.

(3) Fill and empty pressure bottles will be secured by chains or clamps to assure security from damage and will be protected from exposure to the elements or extreme heat. Caps will be kept on bottles when gauges are not attached.

(4) Condensation will be drained from air compressor tanks at least weekly. This will be done more frequently when high humidity and heavy usage prevail. Compressors will not be operated at pressures in excess of the permissible pressure stated on the instruction plate.

n. Welding operations. Welding and cutting operations (acetylene or electric) will not be performed without the use of adequate protective equipment for the operator and all others within the area of operation. All personnel in organizations in which welding or cutting or cutting operations are performed will comply with the provisions of 29 CFR 1910.252 (OSHA Standard). All acetylene welding apparatus will be equipped with back flow check valves between the work and the regulator.

o. Snow and Ice. It is the responsibility of commanders, supervisors, senior occupants of each building, bachelor officer's quarters (BOQ), bachelor enlisted quarters (BEQ), and the occupants of dependent quarters to take prompt remedial action in their assigned areas to minimize slipping hazards by removal of snow and ice or by applying sand or cinders. Salt or calcium chloride will not be used when tracking of these substances may cause damage to floors. Sand or cinders, when required, may be obtained from DPW.

p. Glass hazards. Broken glass will be disposed of in a manner that will prevent injury to personnel.

q. Barracks hazards.

(1) Electrical wiring and that is defective (frayed, broken, or exposed) in buildings or on appliances will be repaired by a qualified electrician.

(2) Lights in shower rooms will be protected by vapor-proof globes. Hand rails and steps will be kept in a good state of repair. Broken glass, protruding nails, and tripping hazards should be eliminated at the time of detection.

r. Gas Powered Lawn Mowing Equipment.

(1) Riding Mowers.

(a) Operators must be licensed before operating this equipment. DPW, Buildings and Grounds Division conducts the required training and issues the licenses.

(b) Noise level of 85db mandates the wearing of hearing protection.

(c) Sturdy shoes (leather - not fabric) must be worn.

(2) Push Mowers.

(a) Noise level of 85db mandates wearing of hearing protection.

(b) Eye protection is required.

(c) Footwear as in paragraph r(1)(c) above will be worn.

(3) Gas Powered Weed Eaters.

(a) Noise level of 85db or more mandates the wearing of hearing protection.

(b) Footwear as in paragraph r(1)(c) above will be worn.

(c) Eye protection is required.

(d) Never attempt to add fuel or make engine adjustments while engine is running or strapped to the operator.

Appendix C
Sample of FLW Form 385-R

RECORD OF MINOR INJURY

THIS INFORMATION IS REQUIRED BY DIRECTIVE OF THE TRADOC COMMANDER

INSTRUCTIONS AND GUIDANCE:

Use this form to report injuries to military personnel that occur during training or mission sustainment and require treatment at a medical facility (for example, GLWACH or CTMC) but which do NOT cause the soldier to miss a full workday.
Do NOT use this form to report illnesses, unless they are directly related to the soldier's duties.
Use this table to determine which form to use to report a soldier injury:

If the soldier does not require treatment at a medical facility	NO WRITTEN REPORT is required.
If the soldier is injured during training or mission sustainment and requires treatment at a medical facility but does not miss a full workday AFTER the day of the injury	Use this RECORD OF MINOR INJURY form to report the injury.
If the soldier misses one or more full workdays AFTER the day of the injury	Use DA FORM 285-AB to report the injury.

Forward the completed form to the MANSCEN Safety Office (MSO) within 10 workdays after the date of the injury.
To forward the form, fold it lengthwise and so that this side of the form is not showing. Staple (or tape) where indicated.
THE PERSONAL INFORMATION MUST BE ON THE INSIDE OF THE STAPLED FORM, NOT VISIBLE TO OTHERS.
Send the form through Official Distribution. You do not have to place the form inside a U.S. Government Messenger Envelope ("shotgun envelope"). It is already addressed and will be delivered to MSO as is.
For information or assistance, contact MSO at 6-2961/0116.

COMPLETE THE FOLLOWING INFORMATION ON THE INJURED SOLDIER. FOR BLOCKS 14 AND 16, SELECT FROM THE CODES ON THE BACK OF THE FORM.

1. NAME:	2. GRADE/RANK:	3. AGE:	4. UNIT/ORGANIZATION:
5. DATE OF ACCIDENT:	6. TIME:	7. LOCATION:	

8. UNIT STATUS OF INJURED SOLDIER: MARK THE BLOCK THAT DESCRIBES THE TYPE OF UNIT THE INJURED SOLDIER IS IN.

AIT		BCT		IET		OSUT		BNCOC	
ANCOC		WOBC		WOAC		OBC		OAC	

9. INDIVIDUAL STATUS OF INJURED SOLDIER: MARK THE BLOCK OR BLOCKS THAT APPLY:

CADET		STUDENT		TRAINEE	
PERMANENT PARTY		CADRE (INSTRUCTOR)		CADRE (DRILL SERGEANT)	

10. DID INJURY OCCUR DURING IET TRAINING? (CHECK ONE)	YES / NO	11. WAS SOLDIER PUT ON RESTRICTED WORK DUTY (LIGHT DUTY OR PROFILE)? (CHECK ONE)	YES ➡ / NO	12. NUMBER OF DAYS:	

13. TYPE OF INJURY (FOR EXAMPLE, FRACTURED ANKLE):

14. CAUSE OF INJURY: SELECT ONE OF MORE CODES FROM THE LIST FOR BLOCK 14 ON THE BACK OF THE FORM. WRITE THE CODE(S) IN THESE BLOCKS. ➡

IF YOU SELECT THE CODE FOR "OTHER," DESCRIBE THE CAUSE OF INJURY HERE:

15. BRIEF SYNOPSIS OF ACCIDENT:

16. TRAINING ACTIVITY: FROM SECTION 16 ON THE BACK OF THIS FORM, SELECT ONE OR MORE CODES THAT DESCRIBE THE ACTIVITY THE SOLDIER WAS INVOLVED IN WHEN THE ACCIDENT OCCURRED. WRITE THE CODES HERE: ➡

17. COMPLETED BY: PRINT YOUR NAME, RANK, PHONE NUMBER, AND TODAY'S DATE IN THESE BLOCKS.

NAME:	RANK:	PHONE:	DATE:

FLW Form 385-R (Jul 02)

Figure C-1. Sample of FLW Form 385-R (Page 1 of 2).


Staple or Tape Here


Staple or tape Here

DISTRIBUTION:
Deliver to:

MANSCEN Safety Office (ATZT-S)
102 Colorado Avenue, Building 631

****

CODES for Blocks 14 and 16

	CODES	CAUSES	CODES	CAUSES
CODES FOR BLOCK 14, CAUSE OF INJURY (SELECT ALL THAT APPLY):	A	Bodily Reaction	G	Inhalation
	B	Caught In/Under/Between	H	Not Following Standards/ Procedures
	C	Exposure	I	Overexertion
	D	Fall	J	Struck Against
	E	Inattention	K	Struck By
	F	Ingestion	L	Thrown From
	M	Other (specify in Block 14 on front)		

	CODES FOR BLOCK 16, TRAINING ACTIVITY INSTRUCTIONS: THERE ARE 5 SECTIONS HERE. FROM ALL OF THE ACTIVITIES IN THE 5 SECTIONS, SELECT ONE OR MORE THAT INDICATE WHAT TRAINING ACTIVITY THE SOLDIER WAS INVOLVED IN WHEN THE INJURY OCCURRED. WRITE THESE CODES IN BLOCK 16 ON THE FRONT OF THIS FORM.	CODES	GENERAL AREAS	CODES	COMBAT SOLDIERING
		1	Airborne	15	Bayonet Training
		2	Aviation	16	Camouflage/Concealment
		3	Field Training Exercise	17	Hand-to-Hand Combat
		4	Fire Fighting	18	Infiltrating/Assault/ Retreating
		5	Fire Incident		
		6	Food/Drink Preparation	19	Parachute Training/PLF
		7	Janitorial	20	Patrolling/Reconnoit/ Scouting
		8	Maintenance		
		9	Maritime	21	River Crossing
		10	Material Handling	22	Slide For Life/Rope Bridge
		11	On-the-job Training	23	Horizontal/Ladder
		12	Operating Vehicle	24	Tactical Parachuting
		13	Operating Vessel	25	Tactical Rappelling
		14	STF – Slips/Trips/Falls		

CODES	PHYSICAL TRAINING	CODES	SOLDIERING	CODES	WEAPONS/FIRING
26	Calisthenics	37	Barracks Detail	43	Assembling/Disassembling/ Cleaning
27	Combat Basketball	38	Formation		
28	Combat Football	39	Maintaining Personal Equipment	44	Carrying/Transporting
29	Combat Soccer			45	Elevating/Lowering
30	Confidence Course	40	Marching	46	Emplacing
31	Frisbee Football	41	Police Call	47	Firing/Discharging/Wielding/ Launching/Throwing
32	Marches	42	Set-up of Unit Equipment/ Shelters		
33	PT Test			48	Rendering Safe
34	Pugil Stick			49	Sight/Aim/Target Acquisition
35	Pushball			50	Traversing
36	Running/Jogging			51	Unauthorized Use/Horseplay

FLW Form 385-R (Jul 02) Back

Figure C-2. Sample of FLW Form 385-R Back (Page 2 of 2).

Appendix D

PROTECTIVE CLOTHING

	OPERATIONS/ACTIVITY	ACID/CHEMICAL HANDLING	BATTERIES HANDLING & CHARGING	BARBED WIRE HANDLERS	BOILER PLANT OPNS	BUFFING/BURNISHING (METAL)	CARPENTRY	CHIPPING/SCALING	CLEANING WITH:	CAUSTICS	STEAM	FIRE FIGHTING	
HEAD & FACE	HARD HAT						X					X	
	SAND BLAST HOOD												
	EAR PLUGS OR MUFFS				X		X				X	X	
HEAD & FACE	GOGGLES, CHEMICAL	X									X		
	GLASSES, SAFETY SPECTACLE			X	X	X	X	X		X	X	X	
	GLASSES, SAFETY CUP-TYPE												
	LIGHT DUTY, FACE SHIELD	X	X			X	X	X		X	X	X	
RESPIRATORY	RESPIRATOR, AIR-SUPPLIED												
	RESPIRATOR, OTHER	*	*			*							
BODY	APRON, PLASTIC OR RUBBER	X	X							X	X		
	APRON, HEAVY CANVAS												
	SUIT, SLICKER										X		
	UNIFORM, SAND BLAST												
	COVERALLS										X		
HANDS	GLOVES, RUBBER	X	X							X	X		
	GLOVES, LEATHER PALM			X	X		X	X				X	
FEET	SHOES, SAFETY, STEEL TOE			X	X	X	X	X				X	
	SHOES, SAFETY, NON-CONDUCTIVE STEEL TOE												
	BOOTS, RUBBER, STEEL TOE	X	X							X	X	X	
MISC.	BELT, SAFETY												
	CREAM-PROTECTIVE												
	REQUIRED SPECIAL SAFETY EQUIPMENT											X	

KEY: X - Use of equipment if mandatory.
* - Specific information on hearing and respiratory protection must be obtained from Preventive Medicine.

	OPERATIONS/ACTIVITY	AIR HOSE (MAX 30psi)	SOLVENTS	CLEANING:	BOILERS	PAINT BOOTHS	DEBANDING, HEAD	DECREASING VAPOR	DRILLING, CONCRETE, BRICK, TILE	DRILLING, METAL	ELECTRICAL, INSTALL & REPAIR		
HEAD & FACE	HARD HAT										X		
	SAND BLAST HOOD												
	EAR PLUGS OR MUFFS				X				X	X			
HEAD & FACE	GOGGLES, CHEMICAL							X					
	GLASSES, SAFETY SPECTACLE	X	X		X	X	X		X	X	X		
	GLASSES, SAFETY CUP-TYPE												
	LIGHT DUTY, FACE SHIELD							*	X	X			
RESPIRATORY	RESPIRATOR, AIR-SUPPLIED												
	RESPIRATOR, OTHER					*		*					
BODY	APRON, PLASTIC OR RUBBER		X					X					
	APRON, HEAVY CANVAS												
	SUIT, SLICKER												
	UNIFORM, SAND BLAST												
	COVERALLS												
HANDS	GLOVES, RUBBER		X		X			X			*		
	GLOVES, LEATHER PALM						X						
FEET	SHOES, SAFETY, STEEL TOE				X	X	X		X	X			
	SHOES, SAFETY, NON-CONDUCTIVE STEEL TOE										X		
	BOOTS, RUBBER, STEEL TOE												
MISC.	BELT, SAFETY												
	CREAM-PROTECTIVE					*							
	REQUIRED SPECIAL SAFETY EQUIPMENT												

KEY: X - Use of equipment if mandatory.
* - Specific information on hearing and respiratory protection must be obtained from Preventive Medicine.

	OPERATIONS/ACTIVITY	EXCAVATING	FORK LIFT OPERATIONS	GRASS CUTTING	GRINDING, DRY	GRINDING, WET	HOUSEKEEPING	LOADING/UNLOADING	TRASH/SAWDUST, ETC.	MACHINIST	MAINTENANCE/MACHANICS		
HEAD & FACE	HARD HAT	X											
	SAND BLAST HOOD												
	EAR PLUGS OR MUFFS	X			X	X				X	X		
HEAD & FACE	GOGGLES, CHEMICAL				X	X							
	GLASSES, SAFETY SPECTACLE	X	X	X					X	X	X		
	GLASSES, SAFETY CUP-TYPE												
	LIGHT DUTY, FACE SHIELD												
RESPIRATORY	RESPIRATOR, AIR-SUPPLIED												
	RESPIRATOR, OTHER												
BODY	APRON, PLASTIC OR RUBBER												
	APRON, HEAVY CANVAS												
	SUIT, SLICKER												
	UNIFORM, SAND BLAST												
	COVERALLS												
HANDS	GLOVES, RUBBER						X						
	GLOVES, LEATHER PALM		X					X	X		X		
FEET	SHOES, SAFETY, STEEL TOE	X	X		X			X		X	X		
	SHOES, SAFETY, NON-CONDUCTIVE STEEL TOE												
	BOOTS, RUBBER, STEEL TOE												
MISC.	BELT, SAFETY												
	CREAM-PROTECTIVE												
	REQUIRED SPECIAL SAFETY EQUIPMENT												

KEY: X - Use of equipment if mandatory.
* - Specific information on hearing and respiratory protection must be obtained from Preventive Medicine.

	OPERATIONS/ACTIVITY	SEWING MACHINE OPNS	SOLDIERING	SPRAY PAINTING	SHEET METAL	REFRIGERANT EQPT. INSP. & MAINT.	WORKERS EXPOSED TO TRAFFIC	WELDING	HEAVY EQUIPMENT OPERATOR				
HEAD & FACE	HARD HAT				X								
	SAND BLAST HOOD												
	EAR PLUGS OR MUFFS				X				X				
HEAD & FACE	GOGGLES, CHEMICAL							X					
	GLASSES, SAFETY SPECTACLE	X	X	X	X	X	X		X				
	GLASSES, SAFETY CUP-TYPE							X					
	LIGHT DUTY, FACE SHIELD												
RESPIR ATORY	RESPIRATOR, AIR-SUPPLIED												
	RESPIRATOR, OTHER			X									
BODY	APRON, PLASTIC OR RUBBER												
	APRON, HEAVY CANVAS												
	SUIT, SLICKER												
	UNIFORM, SAND BLAST												
	SAFETY VEST						X						
HANDS	GLOVES, RUBBER												
	GLOVES, LEATHER PALM				X				X				
	ARM BANDS OR SLEEVELET												
FEET	SHOES, SAFETY, STEEL TOE				X	X			X				
	SHOES, SAFETY, NON-CONDUCTIVE STEEL TOE												
	BOOTS, RUBBER, STEEL TOE												
	LEG BAND												
MISC.	BELT, SAFETY												
	CREAM-PROTECTIVE												
	FLASHLIGHT WITH WAND												

KEY: X - Use of equipment if mandatory.
* - Specific information on hearing and respiratory protection must be obtained from Preventive Medicine.

	OPERATIONS/ACTIVITY	VEHICLE, AIRCRAFT	MATERIALS, HANDLING	OPERATING CRANES & HEAVY EQPT.	PACKING OPERATIONS	PAINTERS, HAND	PLUMBING	POWER MOWERS, TRIMMERS	SAND BLASTING	SANDING, PAPER	SAWS, POWER	OVERHEAD OPERATIONS	
HEAD & FACE	HARD HAT			X								X	
	SAND BLAST HOOD								X				
	EAR PLUGS OR MUFFS	X						X	X	X	X		
HEAD & FACE	GOGGLES, CHEMICAL							X	X	X	X		
	GLASSES, SAFETY SPECTACLE	X	X	X	X	X	X	X	X	X	X	X	
	GLASSES, SAFETY CUP-TYPE												
	LIGHT DUTY, FACE SHIELD												
RESPIRATORY	RESPIRATOR, AIR-SUPPLIED												
	RESPIRATOR, OTHER												
BODY	APRON, PLASTIC OR RUBBER												
	APRON, HEAVY CANVAS												
	SUIT, SLICKER												
	UNIFORM, SAND BLAST								X				
	COVERALLS												
HANDS	GLOVES, RUBBER												
	GLOVES, LEATHER PALM		X	X			X		X				
FEET	SHOES, SAFETY, STEEL TOE		X	X	X		X				X		
	SHOES, SAFETY, NON-CONDUCTIVE STEEL TOE												
	BOOTS, RUBBER, STEEL TOE												
MISC.	BELT, SAFETY												
	CREAM-PROTECTIVE												
	REQUIRED SPECIAL SAFETY EQUIPMENT												

KEY: X - Use of equipment if mandatory.
* - Specific information on hearing and respiratory protection must be obtained from Preventive Medicine.

Appendix E
ACCIDENT INFORMATION

E-1. Date and Time of Accident.

E-2. Equipment type and nomenclature.

E-3. Unit and MACOM.

E-4. Name and telephone number of unit POC.

E-5. Were hazardous or sensitive materials involved? If so, are they secure?

E-6. Location of accident.

E-7. Weather conditions at time of accident.

E-8. Accident classification.

E-9. Brief summary.

E-10. Number of personnel involved.

E-11. Highest rank involved.

E-12. Number of fatalities and injuries.

E-13. Names, grades, social security number, and duty positions of fatalities and injured.

E-14. Whether or not accident scent has been disturbed. If so, whether photographs and/or sketches were taken beforehand.

E-15. Nearest airfield that can handle C-12 (accidents at FLW will be Forney Airfield, FLW, MO). Note: If accident occurs at locations other than FLW, MO, airfield location may be different.

E-16. Nearest airfield served by commercial airlines.

a. For accidents at FLW, MO - Forney Airfield has TWA Express from St. Louis, MO (2 flights Mon-Sat and 1 on Sunday)

b. Springfield, MO is approximately 90 miles from FLW.

c. Lambert Airport, St. Louis, MO is approximately 120 miles from FLW.

Appendix F
KEY PERSONNEL TO BE NOTIFIED

(DURING DUTY HOURS ONLY)

SGS	563-6145/6071/6072
SAFETY DIRECTOR	596-0116
CofS	563-6118
DPTM	563-7131
PROVOST MARSHALL	596-3131
PAO	563-5040
DOL	596-7114
DMP	596-4111
LAO	596-7314/7310
MEDDAC	596-9131
SJA	596-2116

* A roster which includes home phone numbers for off-duty accidents will be maintained with post SDO and MSO.

Appendix G
LOCAL SUPPORT OF CAIG BOARD

G-1. Preliminary Actions.

a. Secure accident scene.

b. Obtain copies of personnel, medical and training records for all personnel directly involved in the accident. (OF 346 and DA Form 348 if appropriate).

c. Identify and notify local board members.

d. Publish orders appointing investigation board.

e. Obtain any special security/access clearances necessary for access to the accident scene by board members.

f. Arrange for special transportation if required to reach the accident scene, i.e., tactical vehicles or aircraft.

g. Obtain items of immediate interest to the board as follows:

(1) List of personnel from whom blood and urine samples were taken.

(2) Witness information: name, rank, telephone number, summaries of any statement made.

(3) Serious Incident Report (SIR), Report of Serious Accident (ROSA), MP, CID reports if completed.

(4) Location, date, time and name of medical officer conducting autopsy.

(5) 1:50,000 map which indicates accident site.

(6) Directives that pertain to the operation being conducted which resulted in the accident.

(7) Weather statements (signed by forecaster).

h. Coordinate billeting of board members, if necessary with local housing office.

G-2. Administrative Support.

a. The board will be assigned one typist capable of transcribing from tapes.

b. The work area assigned to the board will be large enough to conduct witness interviews and deliberations.

c. The board will be provided with maintenance-type work space needed for storage/technical inspection of equipment involved.

d. The board will be provided photo lab support to develop and print color photographs and develop and mount color slides.

Appendix H
FORMAT FOR APPOINTMENT ORDERS OF CAIG BOARD

ATZT-CS (385) Date

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Duty Appointment

1. Effective _____(Date)_____, the following personnel are appointed as Accident Investigation Board (Ground):

President – (Name, Rank/Grade, SSN and Organization)

Recorder – (Name, Rank/Grade, SSN and Organization)

Members- (Names, Ranks/Grades, SSNs and Organizations)

Technical Advisors- (If applicable) (Names, Ranks/Grades, SSNs and Organizations)

2. Authority: Command Letter, HQ TRADOC, subject: Centralized Accident Investigation, Ground (CAIG) Program.

3. Purpose: Investigate Army Accident: (Date, Unit, Equipment/Activity).

4. Period: From (Date) until investigation completed.

5. Procedures: Board will be conducted following the procedures for a general use (or limited use if so directed by the HQ TRADOC) accident investigation.

COMMANDER'S SIGNATURE BLOCK

DISTRIBUTION:

Figure H-1. Format for appointment orders of CAIG Board

Appendix I
GENERAL RESPIRATOR INFORMATION

I-1. Respirator Selection.

a. Respirators shall be selected and used based on the hazards to which the worker is exposed, the work environment and the characteristics and limitation of the respirator. RPE shall be used only for the purposes intended and no modifications of the equipment shall be made.

b. All respiratory protective systems used shall carry NIOSH approval.

c. Respiratory protection is not required if airborne contaminants do not exceed current PEL. Cartridge or filter type dust respirators are generally adequate for airborne levels not exceeding ten times the PEL of the substance(s) for which they are approved. Organic vapor cartridges are adequate for ten times the PEL of the organic vapor involved or 1000 parts per million (ppm), maximum, whichever is less.

d. Air-supplied respirators are required for levels in excess of those for which filtering or purifying types are approved. Only emergency entries by personnel wearing SCBA are permitted into spaces in which oxygen deficiencies or vapor concentrations are immediately dangerous to life or health. A space is considered IDLH if a person wearing a respirator could not escape without the respirator (rapidly debilitating concentrations), or if a person could escape but would suffer serious and permanent health impairments.

e. The correct respirator shall be specified for each applicable job. Respiratory protection requirements for all new or revised processes shall be determined during the technical review made by IH.

f. Components of respirators will not be interchanged/ mixed with different manufacturers of components. Design configurations do not permit mixing of components which may actually permit the entrance of contaminants.

I-2. Factors which influence respirator selection. Respirators are selected with consideration of the following factors -

a. Nature of the hazard - this factor has several important aspects -

(1) The physical state of the air contaminant; e.g., dust, fume, mist, or chemical vapor; the physical state determines some limitation of the respirator.

(2) The relative toxicity of the material; e.g., trichlorethylene is more toxic than trichloromethane. Brazing fumes from cadmium alloys are more toxic than fumes from steel alloys, etc.

(3) The rate at which the contaminant affects the human body; e.g., excessive concentrations of silica dust, although hazardous, will not cause immediate effect; however, an excessive concentration of chlorine gas can overcome an individual almost instantly, making escape impossible.

(4) The possibility that more than one air contaminant in different physical states may be involved; with the exception of a few special purpose cartridges, air-supplied respirators are usually necessary for such combinations.

b. Extent of the hazard - this factor includes the anticipated airborne concentrations and physical area in which the hazard exists.

c. Work requirement and conditions - this factor includes proximity to the source of the airborne contamination and physical restrictions of the working area.

I-3. Respirator limitations. Limitations on respirator suitability are a primary aspect of respirator selection. The respirator must be matched to the hazard; e.g., a dust filter will provide no protection against chemical vapors and an organic vapor cartridge will provide very little protection against hazardous dusts. Combinations of hazardous substances in different physical states generally require an air-supplied respirator or occasionally a chemical cartridge/filter combination. Respirator types generally fall into two classes air-purifying respirators and atmosphere supplying respirators.

a. Air-purifying respirators.

(1) General limitation.

(a) Air-purifying respirators do not protect against oxygen-deficient atmospheres nor against skin irritations, or absorption through the skin of airborne contaminants.

(b) The maximum contaminant concentration against which an air-purifying respirator will protect is determined by the design efficiency and capacity of the cartridge, canister, or filter and the face piece to face seal on the user. For gases and vapors, the maximum concentration for which the air purifying element is designed is specified by the manufacturer or is listed on labels of cartridges and canisters.

(c) Non powered air-purifying respirators will not provide the maximum design protection specified unless the face piece is carefully fitted to the wearers face to prevent inward leakage. The time period over which protection is provided is dependent on canister, cartridge, or filter type; concentration of contaminant; humidity levels in the ambient atmosphere; and the wearer's respiration rate or organic phosphate pesticides. Face pieces present special problems to individuals required to wear prescription lenses. Use of atmosphere supplying respirators in an atmosphere IDLH is limited to specific devices under specific conditions.

(d) SCBA - the wearer carries his own breathing atmosphere. The period over which the device will provide protection is limited by - the pressure (service life of open circuit devices is cut in half by a doubling of atmospheric pressure) and the type of work being performed. Some SCBA devices have a short service life (less than 15 minutes) and are suitable only for escape (self rescue from an irrespirable atmosphere). Chief limitation of SCBA devices are their weight or bulk or both, limited service life and the training required for their maintenance and safe use.

(e) Supplied air respirators (air-line) - the respirable air supply is not limited to the quantity the individual can carry and the devices are lightweight and simple. This device is limited to use in atmospheres from which the wearer can escape unharmed without the aid of the respirator. The wearer is restricted in movement by the hose and must return to a respirable atmosphere by retracting his route of entry. The hose is subject to being severed or pinched off.

Appendix J
MEDICAL QUALIFICATION RESPIRATOR FIT-TEST AND ISSUANCE

J-1. Employees requiring the use of respirators for protection against airborne contaminants are identified by United States Army Medical Activity (MEDDAC), PMS.

J-2. MEDDAC, Occupation Health Section will schedule medical qualification exams and notify individual respirator users.

J-3. The medically qualified individual is fit tested by a qualified person in the unit.

J-4. The supervisor will generate a list consisting of: the respirator user's name, social security number, the results of fit-tests and date fit test was conducted.

J-5. The unit will request respirators and accessories through normal supply channels. A copy of MED
Form 292-R will accompany the supply requisition form to ensure that respirator users have been fit tested by qualified personnel.

J-6. Medical qualification exams will be updated based on Army and OSHA requirements where specific regulations apply. In other cases the frequency will be based on occupational and age related risk factors as determined by the occupational health section.

Appendix K
RESPIRATOR USER INSPECTION GUIDE

K-1. General.

a. All respirators shall be inspected for obvious defects by the user prior to use.

b. Emergency respirators (e.g., SCBA) shall be inspected monthly and after each use. A log shall be maintained by the cognizant shop/department to document these inspections.

K-2. Single-use dust respirators. Single-use dust respirators shall be visually inspected for damage before use.

K-3. Air-purifying respirators.

a. Face pieces shall be free of the following defects, as applicable:

(1) Excessive dirt.

(2) Cracks, tears or deterioration.

(3) Distortion.

(4) Inflexibility.

(5) Cracked or badly scratched lenses.

(6) Incorrectly mounted lenses.

(7) Poorly seated inhalation and/or exhalation check valves.

b. Straps shall be free of the following defects, as applicable:

(1) Breaks.

(2) Loss of elasticity.

(3) Broken buckles.

(4) Worn serration or missing tabs on the head harness that may permit slippage.

K-4. Air-supplied respirators (half mask or full face).

a. Inspect face piece and straps as outlined in L-3a and L-3b.

b. If the device has a corrugated breathing tube, examine it for deterioration by stretching the tube and looking for cracks.

c. Examine the respirator components for accumulation of dirt, grit, oil, etc.

K-5. Air-supplied hoods shall be inspected for holes and tears prior to use

Appendix L
RESPIRATOR MAINTENANCE (CLEANING, WASHING, SANITIZING, AND STORING)

L-1. A respirator used by an individual should be cleaned and sanitized after each day of use. Respirators used by more than one individual MUST BE cleaned and sanitized between users.

L-2. The following procedures should be followed when cleaning, washing, sanitizing, and storing respirators.

a. Disassemble by removing the cartridges, pre-filters, headbands, and other parts.

b. Clean and sanitize (using a cleaner-sanitizer such as Mine Safety Appliance (MSA) Cleaner-Sanitizer, Part No. 34337) the masks and other parts (excluding filters and cartridges) by immersing in warm cleaning solution (about 120 degrees Fahrenheit) and scrub with soft brush until clean. Take care to clean the exhalation valve in the face piece and all other parts.

c. Rinse in fresh warm water about 120 degrees Fahrenheit and air dry in a non-contaminated atmosphere.

d. Respirator components, especially the exhalation valve and seat, should be inspected and any worn or deteriorated parts should be discarded and replaced with new parts. Some uncorrectable defects may include, but are not limited to the following:

(1) Cracks, tears, pits, decomposition, stiffening, swelling and distortion of rubber or silicone rubber.

(2) Distorted or badly worn plastic adapters.

(3) Rubber inhalation valve flap that is stiffened, decomposed, or contains cuts.

e. It is important that the headband of the respirator be in good operating condition. A defective headband may prevent proper sealing of the respirator face piece to the face. Uncorrectable defects may include -

(1) Snap fasteners on headbands and on face piece that are worn, distorted, or loose.

(2) Plastic filter cover that is cracked or distorted.

(3) Plastic exhalation valve seat that is distorted, or contains scratches or cracks on its sealing surface.

(4) Rubber exhalation valve flap that is stiffened, distorted, decomposed or contains cuts.

f. It is important that the exhalation valve be in perfect operating condition. A defective exhalation valve may allow contaminated air to leak into the interior of the respirator and thus endanger the respirator wearer. Check for an exhalation valve cover that is distorted or decomposed.

g. Store respirator in a clean sealable plastic bag in a dry location which is away from atmospheric contaminants. Do not distort rubber face piece during storage.

Appendix M
EXAMPLES OF EQUIPMENT/SYSTEMS REQUIRING LOCKOUT/TAGOUT

Examples of equipment/machines requiring isolation from energy sources while performing maintenance or repair-

M-I. Boilers: High and low pressure.

M-2. Heating/ventilation/air conditioning equipment.

M-3. Air compressors.

M-4. Motors and pumps.

M-5. Steam, water, gas lines.

M-6. A11 electrical components: breakers, starters, relays, generators.

M-7. Valves: Pneumatic, water.

M-8. Control panels.

Appendix N
REMOVAL OF ENERGY ISOLATING DEVICES BY PERSONS OTHER THAN THE EMPLOYEE WHO APPLIED THEM

Procedures for removal of energy isolating devices by persons other that those who applied then. This procedure will only be applied to those situations where circumstances are such that the employee who applied the lockout or tagout is unavailable to retrieve them.

N-1. The supervisor must verify the employee who applied the device is unavailable to retrieve the lock or tag.

N-2. Every reasonable effort will be made to contact the employee to inform him that his lockout or tagout device has been removed.

N-3. The supervisor will ensure that the employee has been informed that his tag has been removed prior to the employee resuming work in the facility where the lockout or tagout device was removed.

N-4. The reason for removal of an employee's energy isolating device shall be documented by the supervisor with a copy provided to the MSO.

Appendix O
EXAMPLES OF LOCKOUT/TAGOUT DEVICES

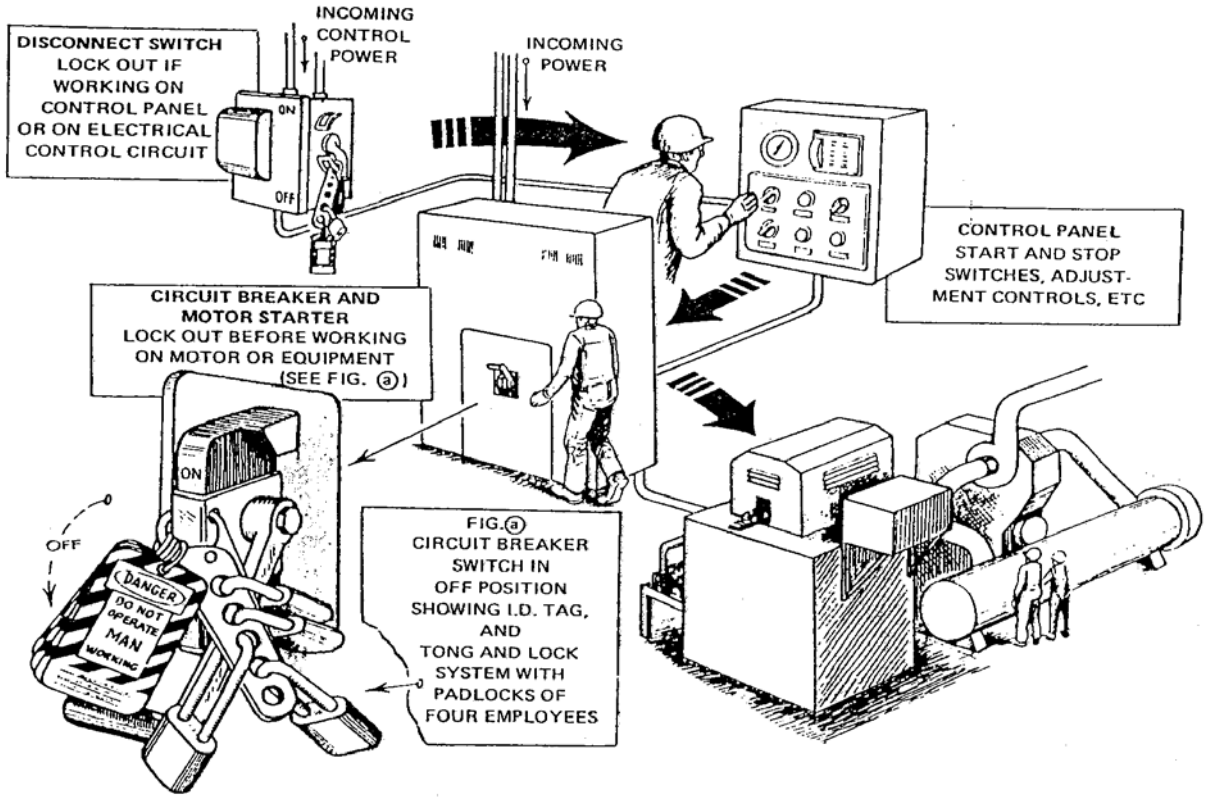

Figure O-1. Lockout/Tagout Procedures for Electrical Energy Source.

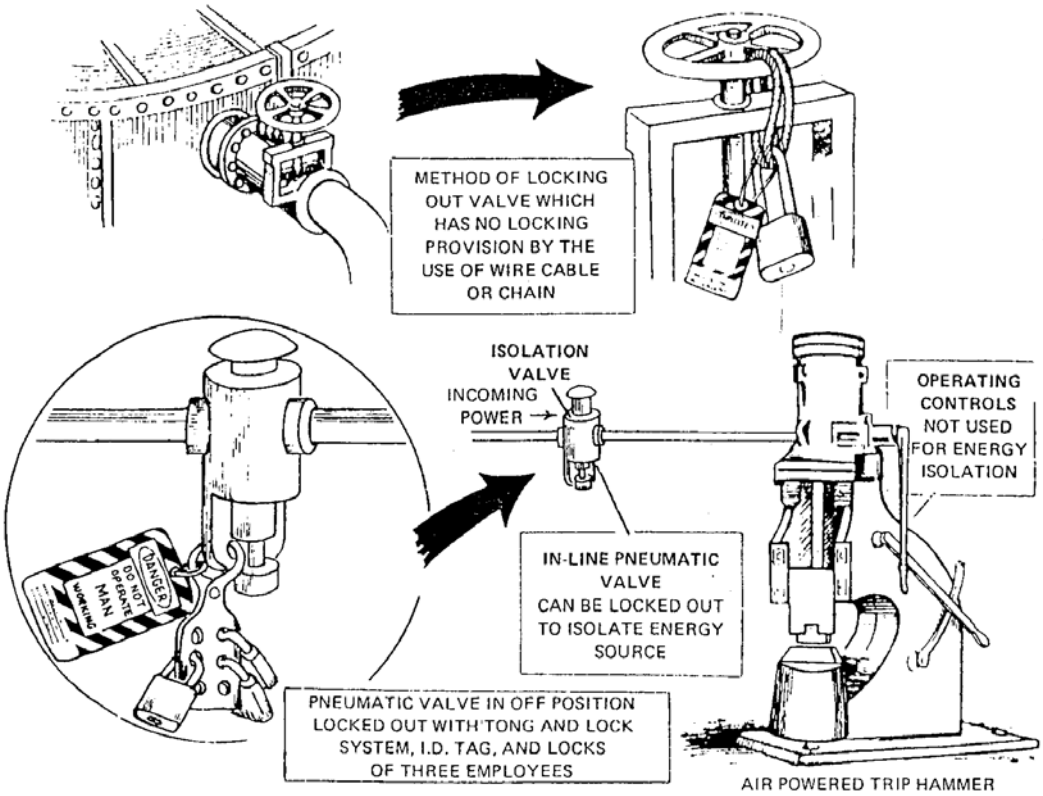

Figure O-2. Lockout/Tagout Procedures for Hydraulic-Pneumatic Energy Source.

Appendix P
EXAMPLES OF JHA

JOB HAZARD ANALYSIS
JOB TITLE: Wood and Metal Furniture Repair
ORGANIZATION: DOL
DATE 3SEP93
ANALYSIS BY: Alec Smart
APPROVED BY: John Boat

JOB STEPS	POTENTIAL HAZARDS
1. Remove furniture from storage.	1a. Is. Back injury. 1b. Drop on feet or hands.
2. Remove materials from storage cabinets.	2a. Pinch hand. 2b. Drop on feet or hands.
3. Cut material (metal or wood) to proper size.	3a. Dust and noise. 3b. Cuts hand or fingers. 3c. Hit by material slung by saw. 3d. Electric shock.
4. Fits new material (parts) and makes necessary alignment.	4a. Pinched fingers and hands. 4b. Splinters in hands.
5. Sands, stains, paints, and refinishes.	5a. Electrical shock. 5b. Exposure to dust and chemicals.
6. Returns finished furniture to storage area.	6a. Back injury. 6b. Drop on feet or hands.

RECOMMENDED PRECAUTIONS:

1a, 6a. Get assistance to lift furniture. Use appropriate carts or hand tucks. Wear lifting belt.

1b, 2b, 6b. Get assistance to lift furniture and material. Wear safety shoes. Wear gloves.

2a. Do not put hand between material. Get assistance.

3a. Use heating protection, respiratory protection, and eye protection.

3b. Be sure all guards are in place on power tools/equipment. Be sure machine brakes are operational. Use push block when applicable.

3c. Use proper guides on machinery to push/feed material through.

3d, 5a. Make sure equipment is grounded. Make sure wires are not frayed. Check switches.

4a. Get assistance. Wear gloves. Use proper tools/clamps/racks.

4b. Wear gloves.

5b. Wear proper protective equipment.

PERSONAL PROTECTIVE EQUIPMENT:

Lifting belt, safety shoes, hearing protection, respiratory protection, eye protection, and gloves.

TRAINING:

HAZCOM, respiratory protection, and proper lifting techniques.

Figure P-1. Example of JHA for Wood and Furniture Repair.

JOB HAZARD ANALYSIS
JOB TITLE: Electronics Mechanic
ORGANIZATION: DOL
DATE: 7SEP93
ANALYSIS BY: Jeff E. Pop
APPROVED BY: Sonny Day

JOB STEPS	POTENTIAL HAZARDS
1. Place equipment on work bench.	1a. Struck against edge of bench. 1b. Caught between equipment arid bench. 1c. Strained by lifting equipment
2. Test equipment	2a. Electric shock. 2b. Struck against sharp edge.
3.Repair equipment	3a. Electric shock. 3b. Struck against sharp edge. 3c. Contact with hot solder.

RECOMMENDED PRECAUTIONS:

1a. Watch equipment to insure that it is clear of points where it might catch or bump against surfaces.

1b. Watch position of hands, arms, and body to keep clear of pinch points.

1c. Use proper lifting techniques. Get assistance.

2a, 3a. Ground all equipment. Watch position of hands and arms to avoid contact with exposed electrical points.

2a, 2b. Watch position of hands and arms to avoid contact with sharp edges.

3c. Wear safety glasses. Use proper soldering procedures.

PERSONAL PROTECTIVE EQUIPMENT:

Safety glasses.

TRAINING:

HAZCOM and proper lifting techniques.

Figure P-2. Example of JHA for Electronics Mechanic.

JOB HAZARD ANALYSIS
JOB TITLE Lathe Machinist
ORGANIZATION: DPW
DATE: 3AUG93
ANALYSIS BY: Flay O. Sunshine
APPROVED BY: Ty L. Payne

JOB STEPS	POTENTIAL HAZARDS
1.Place raw stock in lathe chuck	1a. Stuck against sharp edge of stock. 1b. Caught between stock and lathe. 1c. Strained when lifting stock. 1d. Caught on stock as it rotates in lame. 1e. Struck by tailing objects.
2. Fabricate and/or install template on stylus	2a. Falls caused by slips on oily surfaces at same or different levels. 2b. Climbing for access to elevated controls of equipment
3.Select and install tool cutter.	3a. Struck by falling objects (may be oily). 3b. Stuck against sharp tools.
4. Select machine mode.	4. Contact with electric controls.
5. Machine the part.	5. Struck by metal particles.
6. Remove turnings and chips	6a. Struck by turnings and chips. 6b. Caught on turnings.

RECOMMENDED PRECAUTIONS:

1a. Wear gloves to protect against sharp edges when handling raw stock.

1b. Watch position of hands, arms, and body to keep clear of pinch points.

1c. Use proper lifting techniques. Get help.

1d. Keep hands clear when rotating chuck to position part. Use jogging control or slow speed. Wear short sleeves. Do not wear jewelry.

1e. Wear foot protection.

2a. Keep oil spills wiped up. Apply non-skid material to floor.

2b. Apply non-skid material to elevated steps. Use work platform designed for job, including hand rail.

3a. Keep parts free of oil when handling. Wear foot protection.

3b. Use gloves when handling sharp objects, but not near rotating parts where they may become entangled.

4. Ensure machine is property grounded and all electrical controls are in good repair.

5. Wear eye protection.

6a. Wear eye protection. Use correct tools to dean turnings from table.

6b. Break turnings before they become difficult to control. Do not wear long sleeved work clothes or jewelry.

PERSONAL PROTECTIVE EQUIPMENT:

Safety glasses, gloves, and safety shoes.

TRAINING

HAZCOM and lifting techniques.

Figure P-3. Example of JHA for Lathe Machinist.

Appendix Q
RECOMMENDED MEMBERSHIP OF THE ERGONOMICS SUBCOMMITTEE

Q-1. Chairperson. The IEO -

a. Serves as chairperson of the ergonomics subcommittee.

b. Should be the Chief, Preventive Medicine, or the Safety Director, who will receive at least 40 hours of formal training in ergonomics.

Q-2. Membership. The ergonomics subcommittee should include, but need not be limited to, the following representatives:

a. Core membership.

(1) Health care activity representative (for example, physician, nurse, occupational and physical therapists, physician assistant, and other trained medical personnel).

(2) Industrial hygienist.

(3) Safety Office representative.

(4) Tenant activity representative.

(5) Union representative(s).

(6) CPAC representative.

b. Support and advisory membership.

(1) DOC Support (or equivalent) representative.

(2) DPW representative.

(3) DOL representative.

Q-3. Training. All subcommittee members should receive appropriate ergonomics training.

Glossary

Section I. Acronyms, Abbreviations and Brevity Codes.

AAR
after action review

ACV
army combat tracked vehicles

AG
Adjutant General

AGAR
Abbreviated Ground Accident Report

AMC
Army Material Command

AMCCOM
United States Army Armament, Munition, and Chemical Command

AMV
Army Motor Vehicle

ANSI
American National Standard Institute

AR
Army regulation

ARTEP
Army Training and Evaluation Program

BEQ
Bachelor Enlisted Quarters

BOQ
Bachelor Officers' Quarters

CA Form
Compensation Act Form

CAIG
Centralized Accident Investigation Ground

CAIRA
chemical accident or incident response and assistance

CAIRO
Chemical Accident Incident Response Officer

CASO
Chemical Agent Safety Officer

CDTF
Chemical Defense Training Facility

CFR
Code of Federal Regulations

CG
Commanding General

CID
Criminal Investigation Division

CofS
Chief of Staff

CPAC
Civilian Personnel Advisory Center

DA
Department of the Army

DAC
Department of the Army Civilian

DCD
Directorate of Combat Development

DENTAC
United States Army Dental Activity Command

DLAM
Defense Logistics Agency Manual

DOC
Directorate of Contracting

DOD
Department of Defense

DODI
Department of Defense Instruction

DOL
Directorate of Logistics

DOTD
Directorate of Training and Doctrine

DPTM
Directorate of Plans, Training and Mobilization

DPW
Directorate of Public Works

DRM
Directorate of Resource Management

DSN
defense switching network

DUI
driving under the influence

DWI
driving while intoxicated

EIR
Equipment Improvement Report

EM
engineer manual

EOD
Explosive Ordnance Disposal

FECA
Federal Employee Compensation Act

FLW
Fort Leonard Wood

FM
field manual

FORSCOM
United States Army Forces Command

GCMCA
General Court Martial Convening Authority

GLWACH
General Leonard Wood Army Community Hospital

HAZCOM
hazard communication

HBV
hepatitis B virus

HHIM
Health Hazard Information Module

HIV
human immunodeficiency virus

HQ
headquarters

IAFF
International Association of Fire Fighters

IAW
in accordance with

I-CAIG
Installation-Centralized Accident Investigation Ground

IDLH
Immediately Dangerous to Life and Health

IEO
installation ergonomics officer

IEP
installation ergonomics program

IH
Industrial Hygiene

IMA
Installation Medical Authority

IRPD
Installation Respirator Program Director

IRS
Installation Respiratory Specialist

ISO
Installation Safety Officer

ITP
Individual Training Publication

JHA
Job Hazard Analysis

JWG
Joint Working Groups

LAO
Logistics Assistance Office

MACOM
major command

MANPRINT
Manpower and Personnel Integration

MANSCEN & FLW
United States Army Maneuver Support Center and Fort Leonard Wood (same as MANSCEN)

MCM
Materiel Change Management

MEDDAC
Medical Department Activity

MOS
military occupational specialty

MP
Military Police

MSA
Mine Safety Appliance

MSDS
material safety data sheets

MSHA
Mine Safety and Health Administration

MSO
Maneuver Support Center Safety Office

MTF
medical treatment facility

NAGE
National Association of Government Employees

NCO
noncommissioned officer

NCOA
noncommissioned officer academy

NFFE
National Federation of Federal Employees

NFPA
National Fire Protection Association

NIOSH
National Institute for Occupational Safety and Health

NSC
National Safety Council

OF
Optional Form

OIP
Organizational Inspection Program

OJT
on-the-job training

OPORDER
operations order

OSHA
Occupational Safety and Health Administration

OSHAC
Occupational Safety and Health Advisory Council

PAO
Public Affairs Office

PATS
Protection Assessment Test System

PCE
protective clothing and equipment

PEL
Permissible Exposure Limits

PMS
Preventive Medicine Service

POC
point of contact

POI
program of instruction

POV
privately-owned vehicle

PPE
personal protective equipment

PPM
parts per million

PREOP
pre-operational

PRP
Personnel Reliability Program

PSI
pounds per square inch

QDR
Quality Deficiency Reports

RAC
risk assessment code

RAM
reliability, availability, maintainability

RFP
Request for Proposals

ROSA
Report of Serious Accident

RPD
Respiratory Protection Devices

RPE
Respiratory Protection Equipment

RPP
Respiratory Protection Program

SASOHI
Standard Army Safety and Occupational Health Inspection

SCBA
Self-Contained Breathing Apparatus

SDO
Staff Duty Officer

SF
Standard Form

SGS
Secretary General Staff

SJA
Staff Judge Advocate

SIR
serious incident report

SOP
standing operating procedure

SSSP
site safety submission plans

SSRA
System Safety Risk Assessments

STP
Soldier Training Publication

TACOM
United States Army Tank and Automotive Command

TAP
toxicological agent protective

TB
technical bulletin

TCAT
toxic chemical agent training

TECOM
United States Army Test and Evaluation Command

TG
Technical Guide

TIWG
Test Integration Working Groups

TM
technical manual

TMP
Transportation Motor Pool

TRADOC
United States Army Training and Doctrine Command

TROSCOM
United States Army Troop Support Command

USACHPPM
United States Army Center for Health Promotion and Preventive Medicine

USACIC
United States Army Criminal Investigation Command

USACLMS
United States Army Chemical School

USAES
United States Army Engineer School

USAMPS
United States Army Military Police School

USASC
United States Army Safety Center

UCMJ
Uniform Code of Military Justice

VISMODs
visual modifications

WOSHAC
Working Occupational Safety and Health Advisory Council

WMSD
work-related musculoskeletal disorder(s)

Approved. Respiratory protection tested and listed as satisfactory by NIOSH or MSHA to provide adequate respiratory protection against a particular hazard for which it is designed.

Bloodborne Pathogens. Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, HBV and HIV.

Class A accident - an army accident in which the resulting total cost of property damage and personnel injuries or occupational illness is $1,000,000 or greater; or an injury or occupational illness that results in a fatality or permanent total disability.

Class B accident - an army accident in which the resulting total cost of property damage and personnel injuries or occupational illness is $200,000 or more, but less than $1,000,000; or an injury or occupational illness that results in permanent partial disability or hospitalization of five or more personnel in a single occurrence.

Contaminated by Bloodborne Pathogens. The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Cumulative Trauma Disorders. A class of musculoskeletal disorders involving damage to the tendons, tendon sheaths, synovial lubrication of the tendon sheaths, and the related bones, muscles, and nerves.

Disinfection. The destruction of pathogenic organisms, primarily by means of chemical substances.

Equivalent Civilian Training. A minimum of 40 hours training covering; workstation and job design; hand tool design; current regulatory requirements and issues; analysis and design of manual materials handling tasks; analysis and design of the office environment; and conducting, analyzing, documenting, and presenting an ergonomic worksite evaluation, including hands-on experience.

Ergonomics. Knowledge about human abilities, limitations, and other characteristics that are relevant to the design of tools, machines, systems, tasks, jobs, and environments for safe, comfortable, and effective human use. The aim of the discipline is to fit the job to the person in order to - prevent the development of occupational injury or illness, reduce the potential for fatigue, error, or unsafe acts, increase effective, efficient work.

Ergonomics Expert. An individual who possesses a recognized degree or professional credentials in ergonomics or human factors engineering and demonstrates the ability to identify and correct WMSDs in the workplace.

Exposure to Bloodborne Pathogenes. A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Immediately Dangerous to Life or Health. Environmental conditions which result in less than 19.5 percent of oxygen in the air or contaminants of high toxicity which even for short periods of exposure pose an immediate threat to the life or health of employees.

Job. A sequence of separate steps or activities that, when put together, accomplish a work goal.

Job Hazard Anaysis. JHA is an evaluation of the steps involved in performing a job. Identification of the hazards associated with the job steps, and actions to be taken to eliminate or reduce the hazards.

Microtrauma. A series of minor stresses to the body, each of which alone does not cause discernible damage; however, their accumulation over time can lead to WMSDs.

Multiple Causation. The combined effect of several risk factors in one job, operation, or workstation, which may increase the possibility of WMSDs.

Occupational Hazards. Workplace conditions that may harm workers. Examples are improperly designed workstations, tools and equipment, improper work methods, excessive vibration, aspects of work flow, line speed, posture, force required, work and rest regimens, and repetition rates.

Occupational Illness and Injury. A condition diagnosed by a physician, registered nurse, or other person who, by training or experience, is capable of making such a determination. A condition in which at least one physical finding (for example, positive Tinel's, Phalen's, or Finkelstein's test; swelling, redness, or deformity; or loss of motion or strength) or at least one subjective symptom (for example, pain, numbness, tingling, aching, stiffness, or burning) exists.

Occupational Safety and Health Administration (OSHA). Public law governing occupational safety and health programs.

Organizations. Battalions, brigades, and directorates.

Oxygen-Deficient Atmosphere. An atmosphere containing 19.5 percent or less of oxygen by volume.

Pinch Grip. A grip that involves one or more fingers and the thumb.

Personal Protective Equipment. Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be PPE.

Respirator. Device designed to provide the user with respiratory protection against inhalation of a contaminated atmosphere and for some devices, to provide oxygen by volume-deficient atmospheres (see appendix J).

Trained Ergonomics Personnel. Health care, IH, environmental science, safety, or engineering personnel with approved training in ergonomics. Minimum acceptable training for installation-level trained ergonomics personnel is the basic 40-hour ergonomics course offered by USACHPPM.

Unit. Companies, separate detachments, and divisions of directorates.

Worksite. A work area or work environment.

Workstation. An individual person's work area, such as a desk, chair, and computer terminal or an individual inspection station.

RCS # ATZT-S-91-1

TELEPHONIC ACCIDENT REPORT

DA Form 285 SUSPENSE _____

1. NAME _____

2. GRADE _____

3. UNIT _____

4. DATE _____

5. TIME _____

6. ON/OFF POST _____

7. ON/OFF DUTY _____

8. LOCATION _____

9. CLASSIFICATION (MILITARY/CIVILIAN) _____

10. SEATBELTS/HELMET:

USED _____ AVAILABLE _____ AVAILABLE, NOT USED _____ N/A _____

11. ALCOHOL INVOLVED _____

12. SEVERITY OF INJURY _____

13. NUMBER OF INJURIES _____

14. NUMBER OF FATALITIES _____

15. ITEM _____

MODEL _____

OWNER _____

ESTIMATED AMOUNT OF PROPERTY DAMAGE _____

16. NARRATIVE OF ACCIDENT _____

_____

_____

17. TYPE OF ACCIDENT (AMV, POV, OTHER) _____

18. RECEIVED BY _____

19. RECEIVED FROM _____ PHONE _____

FLW Form 291-R (1 Feb 91)

RECORD OF MINOR INJURY

THIS INFORMATION IS REQUIRED BY DIRECTIVE OF THE TRADOC COMMANDER

INSTRUCTIONS AND GUIDANCE:

Use this form to report injuries to military personnel that occur during training or mission sustainment and require treatment at a medical facility (for example, GLWACH or CTMC) but which do NOT cause the soldier to miss a full workday.
Do NOT use this form to report illnesses, unless they are directly related to the soldier's duties.
Use this table to determine which form to use to report a soldier injury:

If the soldier does not require treatment at a medical facility	➡	NO WRITTEN REPORT is required.
If the soldier is injured during training or mission sustainment and requires treatment at a medical facility but does not miss a full workday AFTER the day of the injury	➡	Use this RECORD OF MINOR INJURY form to report the injury.
If the soldier misses one or more full workdays AFTER the day of the injury	➡	Use DA FORM 285-AB to report the injury.

Forward the completed form to the MANSCEN Safety Office (MSO) within 10 workdays after the date of the injury.
To forward the form, fold it lengthwise and so that this side of the form is not showing. Staple (or tape) where indicated.
THE PERSONAL INFORMATION MUST BE ON THE INSIDE OF THE STAPLED FORM, NOT VISIBLE TO OTHERS.
Send the form through Official Distribution. You do not have to place the form inside a U.S. Government Messenger Envelope ("shotgun envelope"). It is already addressed and will be delivered to MSO as is.
For information or assistance, contact MSO at 6-2961/0116.

COMPLETE THE FOLLOWING INFORMATION ON THE INJURED SOLDIER. FOR BLOCKS 14 AND 16, SELECT FROM THE CODES ON THE BACK OF THE FORM.

1. NAME:	2. GRADE/RANK:	3. AGE:	4. UNIT/ORGANIZATION:

5. DATE OF ACCIDENT:	6. TIME:	7. LOCATION:

8. UNIT STATUS OF INJURED SOLDIER: MARK THE BLOCK THAT DESCRIBES THE TYPE OF UNIT THE INJURED SOLDIER IS IN.

AIT		BCT		IET		OSUT		BNCOC	
ANCOC		WOBC		WOAC		OBC		OAC	

9. INDIVIDUAL STATUS OF INJURED SOLDIER: MARK THE BLOCK OR BLOCKS THAT APPLY:

CADET		STUDENT		TRAINEE	
PERMANENT PARTY		CADRE (INSTRUCTOR)		CADRE (DRILL SERGEANT)	

10. DID INJURY OCCUR DURING IET TRAINING? (CHECK ONE)	YES / NO	11. WAS SOLDIER PUT ON RESTRICTED WORK DUTY (LIGHT DUTY OR PROFILE)? (CHECK ONE)	YES ➡ / NO	12. NUMBER OF DAYS:	

13. TYPE OF INJURY (FOR EXAMPLE, FRACTURED ANKLE):

14. CAUSE OF INJURY: SELECT ONE OF MORE CODES FROM THE LIST FOR BLOCK 14 ON THE BACK OF THE FORM. WRITE THE CODE(S) IN THESE BLOCKS. ➡

IF YOU SELECT THE CODE FOR "OTHER," DESCRIBE THE CAUSE OF INJURY HERE:

15. BRIEF SYNOPSIS OF ACCIDENT:

16. TRAINING ACTIVITY: FROM SECTION 16 ON THE BACK OF THIS FORM, SELECT ONE OR MORE CODES THAT DESCRIBE THE ACTIVITY THE SOLDIER WAS INVOLVED IN WHEN THE ACCIDENT OCCURRED. WRITE THE CODES HERE: ➡

17. COMPLETED BY: PRINT YOUR NAME, RANK, PHONE NUMBER, AND TODAY'S DATE IN THESE BLOCKS.

NAME:	RANK:	PHONE:	DATE:

Staple or Tape Here

Staple or tape Here

DISTRIBUTION:

Deliver to:

MANSCEN Safety Office (ATZT-S)
102 Colorado Avenue, Building 631

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CODES for Blocks 14 and 16

	CODES	CAUSES	CODES	CAUSES
CODES FOR BLOCK 14, CAUSE OF INJURY (SELECT ALL THAT APPLY):	A	Bodily Reaction	G	Inhalation
	B	Caught In/Under/Between	H	Not Following Standards/ Procedures
	C	Exposure	I	Overexertion
	D	Fall	J	Struck Against
	E	Inattention	K	Struck By
	F	Ingestion	L	Thrown From
	M	Other (specify in Block 14 on front)		

	CODES FOR BLOCK 16, TRAINING ACTIVITY
	INSTRUCTIONS: THERE ARE 5 SECTIONS HERE. FROM ALL OF THE ACTIVITIES IN THE 5 SECTIONS, SELECT ONE OR MORE THAT INDICATE WHAT TRAINING ACTIVITY THE SOLDIER WAS INVOLVED IN WHEN THE INJURY OCCURRED. WRITE THESE CODES IN BLOCK 16 ON THE FRONT OF THIS FORM.

CODES	GENERAL AREAS
1	Airborne
2	Aviation
3	Field Training Exercise
4	Fire Fighting
5	Fire Incident
6	Food/Drink Preparation
7	Janitorial
8	Maintenance
9	Maritime
10	Material Handling
11	On-the-job Training
12	Operating Vehicle
13	Operating Vessel
14	STF – Slips/Trips/Falls

CODES	COMBAT SOLDIERING
15	Bayonet Training
16	Camouflage/Concealment
17	Hand-to-Hand Combat
18	Infiltrating/Assault/ Retreating
19	Parachute Training/PLF
20	Patrolling/Reconnoit/ Scouting
21	River Crossing
22	Slide For Life/Rope Bridge
23	Horizontal/Ladder
24	Tactical Parachuting
25	Tactical Rappelling

CODES	PHYSICAL TRAINING
26	Calisthenics
27	Combat Basketball
28	Combat Football
29	Combat Soccer
30	Confidence Course
31	Frisbee Football
32	Marches
33	PT Test
34	Pugil Stick
35	Pushball
36	Running/Jogging

CODES	SOLDIERING
37	Barracks Detail
38	Formation
39	Maintaining Personal Equipment
40	Marching
41	Police Call
42	Set-up of Unit Equipment/ Shelters

CODES	WEAPONS/FIRING
43	Assembling/Disassembling/ Cleaning
44	Carrying/Transporting
45	Elevating/Lowering
46	Emplacing
47	Firing/Discharging/Wielding/ Launching/Throwing
48	Rendering Safe
49	Sight/Aim/Target Acquisition
50	Traversing
51	Unauthorized Use/Horseplay

UNIT SAFETY INSPECTION RECORD		DATE OF INSPECTION
UNIT	INSPECTED BY (Safety Officer)	

BLDG NO AREA	DEFICIENCIES FOUND	CORRECTIVE ACTION TAKEN

Spot Check of effectiveness of Unit Safety Training:

1. Questioning of personnel encountered on inspection indicates that _____ of _____ supervisory personnel and _____ of _____ non-supervisory personnel have adequate knowledge of installation and unit safety requirements.

2. Areas of questioning on this inspection _____.

3. Number of unreported injuries observed on this inspection _____.

INSTRUCTIONS: Complete in one copy by pen and retain in unit files for reference and records inspection.

FLW Form 944-R (24 Oct 61)